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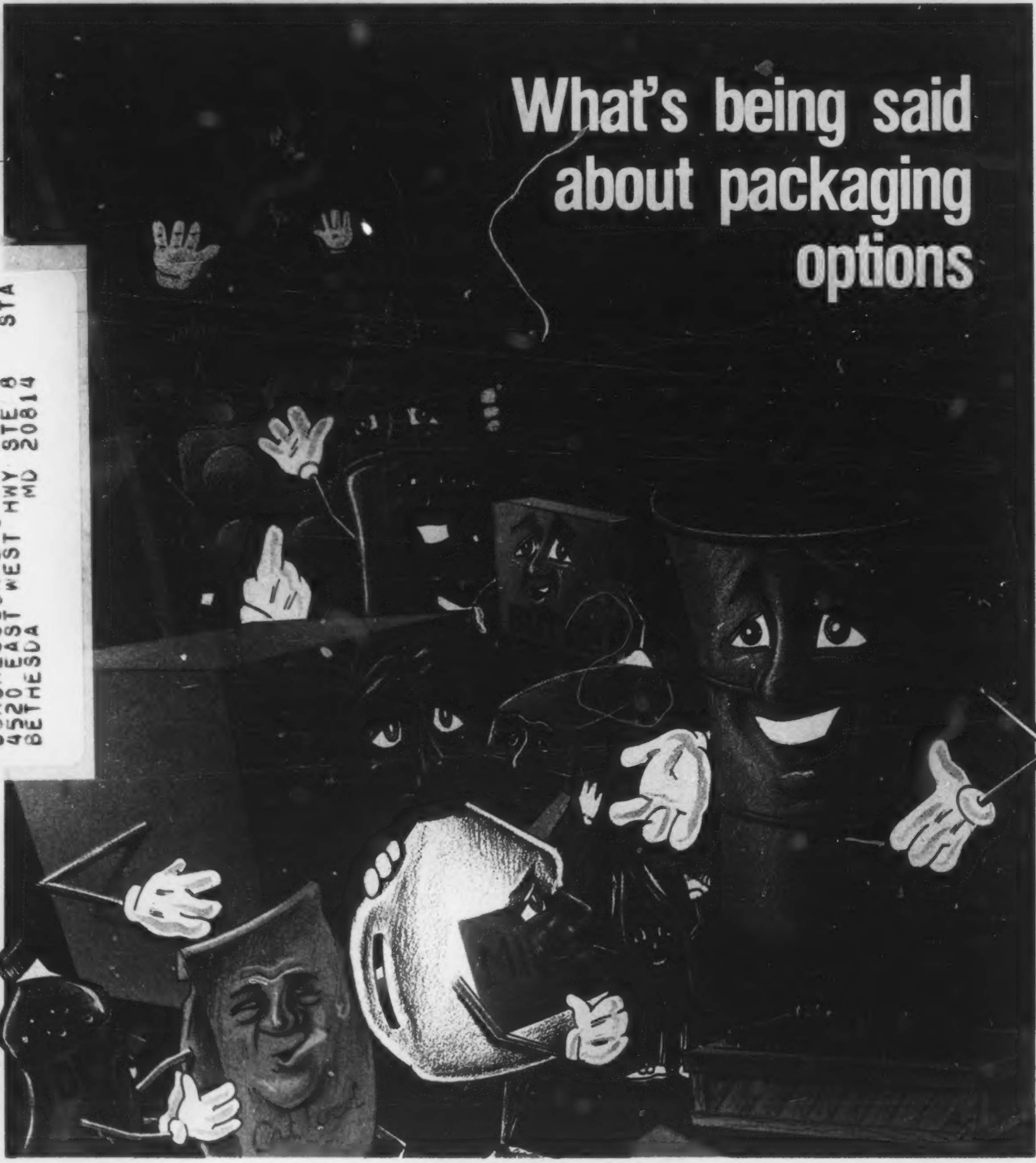

What's being said about packaging options

Plastics boom may strain capacity

Fighting an unfair price increase • Air freight comes of age

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A major newspaper chain has found purchasing software that will save the company millions—with a comparatively small investment.

Cover Illustration and Design by Andy Shive.

PurchasingWorld

PW POINTERS

Airborne Express extends tracking to Far East

On-line freight tracking is now being accorded in Far East, Australia and New Zealand to users of Airborne Express. Airborne's customers will now have immediate access to the status of any Airborne shipment worldwide.

"We see expansion of FOCUS (Freight online control and update system) to the Pacific Rim as an important improvement in service to the importers and exporters who have to know where their shipments are at any time." *Airborne Express.*

NAPM's electronic group officers are elected for two-year terms

Linn E. Nelson, Synektron Corp., Portland, OR, has recently been elected chairman of the Electronic Purchasing Group of the National Association of Purchasing Management. This group has grown over 40% per year since 1986 and now numbers nearly 2,500 members.

Other officers of the electronics group are: vice chairman, Russ Boyd C.P.M., Johnson Controls, Carrollton, TX; treasurer, Lisa K. Martin C.P.M., NBC, Burbank, CA; executive director, Robert J. Nahabit, Nahabit & Associates, Valencia, CA; education/public relations, L. Wayne Riley C.P.M., Intel Corp., Phoenix; secretary/membership, Lisa Monahan C.P.M., Rockwell International, Duluth, GA; and program manager, Dan Bonker, Tektronix, Vancouver, WA.

The electronics group will stage its second annual purchasing conference March 1-3 in Dallas. *NAPM Electronic Purchasing Group.* **Circle 103**

Duro-Test provides '800' line for PMs

Duro-Test Corp., manufacturer of energy-saving, premium-life, and specialty light bulbs designed especially for commercial and industrial applications, has installed a toll-free number for product information, direct ordering, and customer service. The number is 800-BUY-DURO (289-3876). *Duro-Test Corp.*

Laser printer labels make in-house mailings fast

Labels that feed automatically through a laser printer, making the creation of mailing and shipping labels fast and economical, are available from Avery Consumer Products Division. These laser printer labels are mounted on a specially formulated paperstock, and are geared to withstand the intense heat generated in a laser printer.

"Other labels on the market have to be fed manually through laser printers, one sheet at a time," explains Frank Rexach, product manager for Avery Laser Supplies. "Ours feed automatically and with Avery laser printer labels there's no risk of damaging your printer."

You can use Avery's laser printer labels to produce bar code labels, shipping labels, file folder labels, or any other custom label designs in-house. *Avery Consumer Products Division.* **Circle 80**

Guide compares "White Glove" truck service to van line and air freight alternatives

Roberts Express' White Glove Division serves as an alternative to van lines or air freight for high value industrial products, radioactive shipments, government freight, and trade show exhibits. What the White Glove Division has to offer in services, and how it compares in cost to others is detailed in a six-page service guide and cost comparator.

All equipment has air-ride suspension and pad-wrap capabilities. Pickups are made on the day of the request or by precise appointment. Guaranteed delivery service is available. *Roberts Express, Inc.* **Circle 107**

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by Robert S. Reichard, executive editor

Inflationary fears disappearing

Fears of sharply accelerating inflationary pressures over the next few quarters are fast disappearing.

The improving outlook, in large part, stems from the fact that demand gains are beginning to slow down a bit. New forecasts suggest that next year's industrial production advance will come to only around 2.5%—less than half this year's estimated spurt.

This respite stems in part from more cautious consumer buying. Autos are a case in point—with new sales expected to drop by nearly 5%—from 10.7 million units in 1988 to only 10.2 million in 1989.

These decelerating demand increases will be occurring at a time when new factory capacity is being readied to hit the market. Most forecasts in this area are calling for a 5% or higher increase in industrial potential over the next year or so. Superimpose this on the 2.5% increase in industrial production that is being projected and the conclusion is clear: Factory utilization rates will begin to level off and perhaps even decline a bit as 1989 wears on.

This improving supply-demand situation should give buyers somewhat more bargaining leverage in new contract negotiations. Certainly metals will be in better balance—with steel, aluminum, and copper producers hard pressed to maintain their current asking prices.

Overall availability may already be improving. "Fewer items are in short supply and fewer items are going up in price," observes Pitney Bowes' Robert J. Bretz, head of the NAPM Business Survey Committee. On the price front, only 47% of responding purchasing managers now report higher prices. True, this is still high. But it is not nearly as high as in the previous three months when an average of over 50% of the respondents were reporting price increases.

But improving market balance is not the only reason for today's increasing optimism about limiting future price increases. Certainly the recent tumble in crude petroleum quotes can't be ignored. While it's hard to predict the future trend in oil prices with complete certainty (given the vagaries of the OPEC cartel), overall tags look to remain well under the levels prevailing over the past few years.

Point to keep in mind: *Oil sparked all the inflationary spirals of the past decade. And conversely—when oil simmered down, so did prices.*

Finally a few words on the wage front. A new Bureau of National Affairs survey on labor negotiations suggests 1989 union pay hikes of something under 4% a year—hardly the sign of accelerating inflationary pressures. If you subtract a few percentage points for productivity offset, the overall labor cost impact is likely to be considerably less than 4%.

Leasing becoming popular

Leasing of equipment is becoming an increasingly attractive alternative to outright purchase.

That's the key finding of the latest annual survey of the American Association of Equipment Lessors (AAEL). Based on a sample of one-third of the industry, the study finds respondents shelling out $33 billion for new equipment last year. AAEL executives say this probably means that the all-industry total was approaching the $95 billion mark.

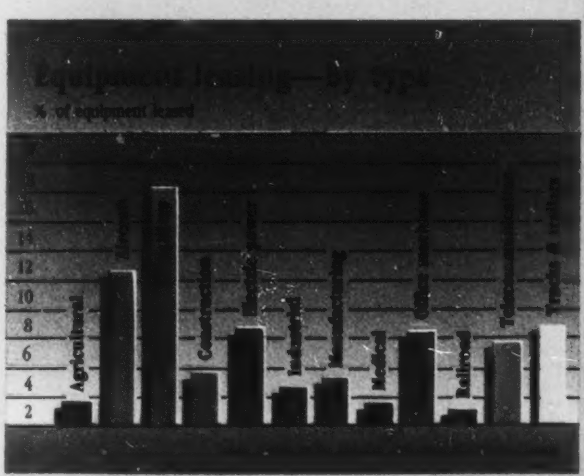
And for this year, the group is predicting totals will reach the $100 billion level—with next year even higher. How much higher will depend on how fast the economy grows. Putting all this into perspective, AAEL estimates that between 25 and 30% of all equipment ordered in the U.S. today is leased.

Biggest leasing markets are in the business equipment sector. Based on the new study, some 18.2% of all leasing is earmarked for computers. Add in other office machines (8.2%), and telecommunications (7.8%), and business equipment accounts for more than one-third of all leasing activity.

AAEL notes that the operating or short-term lease (where the lessee acquires the equipment for just a fraction of its useful life) is now predominantly used in computer leases.

But aircraft buyers are also getting into the act. Short-term pacts now make up 14.4% of all aircraft leases. That's up significantly from the 8.1% short-term share of just a year earlier. One probable reason: These short-term leases offer a good hedge against obsolescence.

On the other hand, there is now less growth in leveraged leasing due to recently lowered tax rates and loss of some tax credits.



Aluminum operations at full capacity

Market ingot continues to go for over $1/lb as U.S. facilities operate at virtually full capacity. Little further increase is seen here—though fabricated flat-rolled products are continuing to edge higher. As for longer pull—price volatility should persist as traders, speculators, toll smelters, and commodity exchanges all exert an influence.

Steel price picture mixed

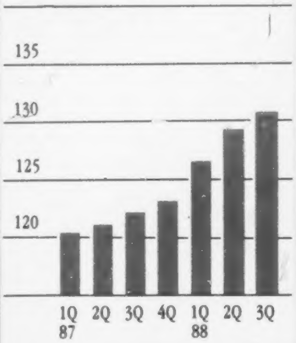
A mixed price picture here. Non-oriented electrical sheets are moving up an average of 6% in January. Some discounts on these products could also be reduced or eliminated. Service center transaction prices on hot-rolled carbon sheet in the Midwest and Northeast have dropped about $30/ton over the past few months and are now in the $390-405/ton range. Service centers also report some easing in cold-rolled and coated sheet.

Paper prices march ahead

Prices continue to advance. Latest increases: 1) A $25/metric ton boost (to $760/ton) in northern bleached softwood kraft, 2) a $50/ton advance in uncoated free-sheet offset papers and $40/ton on cut-size papers, 3) a similar $50/ton boost on forms bond, and 4) a $45/metric ton hike in newsprint. The latter, scheduled for early next year, could be in trouble as inventories mount and retail advertising demand takes a breather. Chances of this boost are only 50-50.

Paper & allied products

(Index: 1982 = 100)



Lead stays firm for 4Q

Look for the heavy metal to remain firm as the battery season moves into high gear. Another bullish factor: Still-falling producer inventories. This has forced some producers to run 1-2 weeks behind on schedules. It's no surprise that prices have moved up into the 38-40¢/lb range—some 4-6¢/lb above the early 1988 low. On a rosier note for buyers, global supply seems to be catching up with demand, so significant near-term price hikes are not too likely. Some market softness may well develop early next year when seasonal buying traditionally drops off.

Breather coming in semiconductors?

The booming semiconductor industry may be heading for a breather.

New Semiconductor Industry Association (SIA) projections tell the story. Worldwide shipments are expected to show only about a 10% advance in 1989—far under the 38% increase estimated for the rest of 1988.

And by 1990, a small actual decline (something in the order of 3%) is anticipated. On the other hand, a modest 14.5% recovery is seen for 1991—the last year of the new SIA forecast.

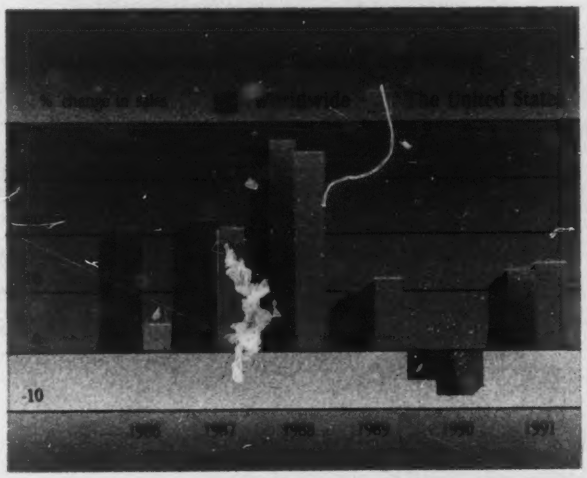
The figures for the U. S. viewed separately show a similar trend, up 35% this year and only 12% in 1989. The following two years for the U.S. also mirror the world trend—with sales expected to drop 6.5% in 1990 before moving up about 15% in 1991.

Coming back to the world demand, an SIA spokesman notes that this year's numbers show extraordinary growth in segments like CMOS microprocessors and CMOS memory devices.

As for the upcoming slowdown, this same analyst attributes it to a pause in both the big computer and personal computer markets, adding that the industry is already starting to see reduced bookings for a number of devices earmarked for the computer sector.

But whatever the overall trend, CMOS logic devices should continue to outperform the market. Fueled by growth in application specific integrated circuits (ASICs) and microprocessors, sales in this area jumped 62% (to $9.9 billion) this year. Increases of 23, 4 and 27% are seen for 1989, 1990 and 1991, respectively.

To put this growth in perspective: The combination of CMOS logic and memory products accounted for only 24% of total solid state shipments in 1987. By 1991 this combination will constitute nearly half of such billings.



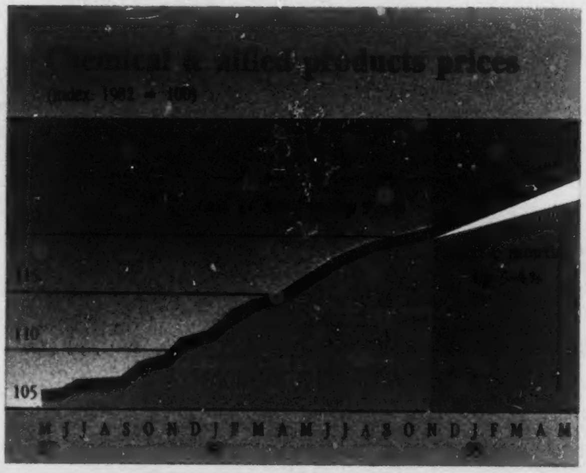
Chemicals still booming

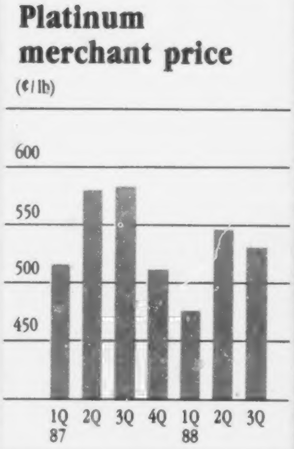
CURRENT SITUATION: Markets—bolstered by strong demand and relatively snug supplies—continue to boom. On the availability score, operating rates have jumped up into the 86%-plus range—four points above a year earlier. Prices have remained quite buoyant—with average quotes running a strong 9.5% ahead of a year earlier. **Zero in on the key organic sector—and year-to-year price boosts are a lot higher—something in the order of 18%.**

DEMAND: Total industry output this year looks to be up a solid 7%. More significant, buying has been strong across the board. On a major sector basis, these 1988 gains are currently being projected: Organic chemicals (8.5%), synthetic materials (6.5%), drugs (10.0%), and paints (3.0%).

SUPPLY: The tightness suggested by the current 86%-plus operating rate is spotty rather than across the board. Especially snug at this time are such aromatic chemicals as styrene, phenol and aniline. Some of the basic aliphatics (especially ethylene) are also sometimes hard to find—though there are some notable exceptions here like propylene and butadiene. As for inorganics, caustic remains the big problem—with tightness spilling over into competing soda ash. And in pigments, titanium dioxide continues on the short side. But relief is on the way. The industry this year plans on a 20% increase in capital spending.

PRICE OUTLOOK: Increases will persist—but at a somewhat slower pace than in recent quarters. In part, this will be due to somewhat improved supply-demand balance. But the recent sharp drop in oil should also act as a brake. Finally, margins for many products have now become ample enough that, while further increases may be attainable, they are no longer considered a priority.





Platinum market shortfall

The precious metal seems overdue for a rally. Prices could edge up 5% (into the $550/oz range) by early next year. Reason: This marks the fourth straight year of market shortfall. While worldwide supply increased to 3.3 million ounces this year, it was still not enough to meet an estimated 3.4 million-ounce consumption level. South Africa's three major producers (Impala, Rustenburg, and Western Platinum) have announced expansion plans—but most of this won't be happening until after 1990.

Urea demand to rise

Markets are becoming increasingly bullish in anticipation of sharply increased spring 1989 plantings. Other signs of strength: Close to capacity production, fairly low inventories, and significantly higher prices than a year ago. At latest report, the fertilizer was fetching $133-135/ton (Gulf, barge) and about $145-150/ton on the terminal level. And more hikes loom, with quotes as high as $160/ton anticipated by next spring. That should be it—anything higher would begin to attract imports from Europe.

Truck rate increases coming?

Some carriers are toying with another round of rate increases for January—with contemplated boosts said to run as high as 5%. If the increase takes place it would mark the third advance in just 10 months. Rates climbed 4% in April to reflect a Teamster wage boost and another 3.5% in June. True, discounts persist—but the level of rate shading has also tended to moderate in recent months.

Manmade fiber prices increase

A newly announced 9% increase in polyester staple—bringing the going price up into the 77-80¢/lb range—may not stick. Reason: Downstream fabric demand has been relatively soft in recent months. Other increases (including one on rayon staple) should be holding up a lot better. Another increase in nylon (as much as 10¢/lb) can't be ruled out by early next year.

Printed wiring boards in short supply

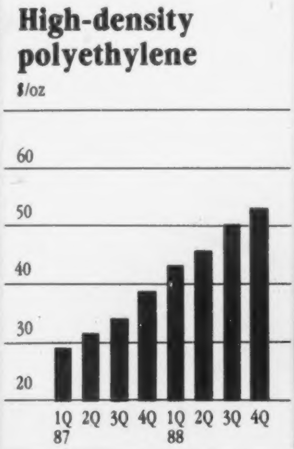
The combination of increased demand and relatively snug supplies is driving prices up. Transaction tags this year, according to a new WEFA Group estimate, should average about 4% more than in 1987—with the average quote put at near 26¢/unit. And an even bigger 7.5% increase is anticipated for next year—into the 28¢/unit range. WEFA also sees a gradual change in board demand—away from the single/double side mother/daughter card configuration and towards a multi-layer full-function one.

Zinc prices up but steady

Free-world year-to-date production is up some 5% *vis a vis* comparable 1987 levels. But because of a 4% increase in demand and net exports to the Socialist bloc, the metal is still in short supply. Upshot: Current quotes well over 70¢/lb remain a hefty 70% ahead of 1987 levels. And they're likely to remain firm into early 1989—if current high auto production (the key market) holds up.

Polyethylene resins going up

Removal of a 2¢/lb temporary allowance should push high-density polyethylene (HDPE) resins up into the 52-54¢/lb range. Markets remain strong—with the industry operating close to full capacity. Some modest relief lies ahead as more than 17% is added onto overall industry potential over the next two years. On the low-density (LDPE) front, producers are attempting to raise prices on certain extrusion coating resins and board coaters.


High-density polyethylene

Disk drives in overcapacity

Overcapacity has dropped quotes anywhere from 20-50%. Example: The powerful 380 megabyte model now sells for only $900—down sharply from the $1,700 quote of last year. Behind all the easiness: Worldwide capacity is near 17 million units per year—but PC makers will probably buy only 14 million. The situation could continue, as PC demand gains slow down—from 17% this year to about 9% in 1989.

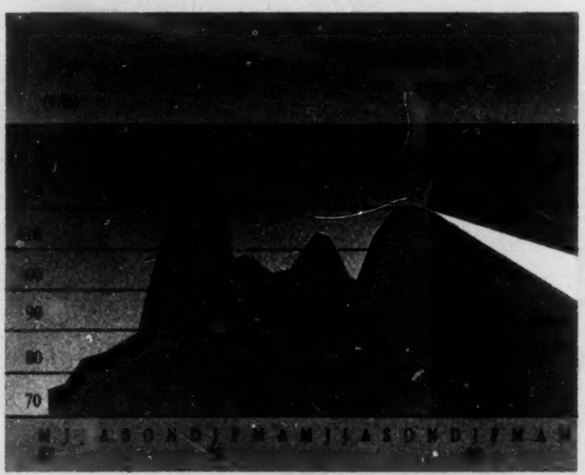
Copper prices confound experts

CURRENT SITUATION: The red metal continues to confound the experts. Instead of continuing to edge lower after the runup of late last year, **prices have again rallied.** The reasons aren't too hard to find. For one, inventories are at an all-time low. And more important, production is still lagging behind demand. Indeed, a number of North American producers have been forced to come into the cash market to meet commitments they had booked earlier.

DEMAND: Aggravating the situation is the fact that the fourth quarter is the metal's period of heaviest consumption. The booming capital equipment market is also adding to overall demand. **In all, it suggests that world refined deliveries (a proxy for consumption) will hit 3.252 million short tons this year**—about 78,000 tons above estimated global refined copper production.

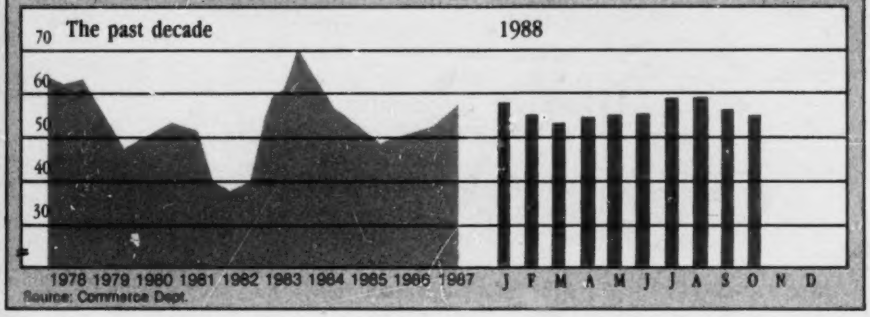
SUPPLY: Current tightness could persist for a few more months. But there's light at the end of the tunnel. The next year, for example, is not likely to see as many work interruptions as this year. Then, too, capacity is beginning to rise. In the U.S. increased use of the low-cost solvent extraction-electrowinning method should boost output by about 50,000 tons in 1989. Add in other worldwide expansions (more than one million tons of new potential are due to come on stream by 1992)—**and a surplus could appear by next summer or fall.**

PRICE OUTLOOK: A further inching ahead can't be ruled out for the remainder of the year. But what goes up must come down. In any case, look for some leveling and maybe a few modest declines through spring as markets gradually come back into better balance. Lower production costs, reflecting new, more efficient mining techniques, should also help take some of the heat off prices. **By mid-spring the metal should be back down near $1/lb.**



N.A.P.M. business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



Source: Commerce Dept.

KEY ECONOMIC TRENDS

Plenty of momentum left

Figure on somewhat less ebullient growth over the next few quarters. But there's still enough momentum left to keep things in the plus column—for at least another six months and probably longer than that.

Lest there be any doubt on this score, take a look at the bellwether NAPM Business Barometer (see chart). The latest 54.8 reading is the lowest in six months, but the point to remember is that the drop-off has been quite modest—and more important, the figure remains well above the neutral 50 level. Implication: continuing production and sales gains ahead.

Another reassuring note: The still-positive picture signalled by more than 650 top manufacturing executives (see following story). In a nutshell, most are predicting continued near-term gains in orders, sales and profits.

The foreign trade outlook also has to be regarded as a basically positive sign. According to Robert J. Bretz, chairman of the NAPM Business Survey Committee, export orders which have fueled much of the recent expansion continue to advance.

Further confirmation of an improving trade picture can be gleaned from the chart on net real imports shown on the right. The figure at latest report had dropped to $75 billion at annual rate—half that noted just two years earlier.

This kind of improvement can't be underestimated. It means that U.S. factories are turning out some $75 billion more a year in real terms than they did in 1986—business that would otherwise have gone to foreigners (either in the form of lost export business or increased domestic purchases of overseas goods).

That's not to say that there aren't some weak spots. Construction, for one, is beginning to hurt from the impact of higher interest rates. Building awards (a precursor of future activity—see second chart, right) have slipped and are generally running considerably under year-ago levels.

The construction lull is further confirmed by the drop in building permits. They're off about 2% so far this year—with declines reported in more than half the nation's biggest cities.

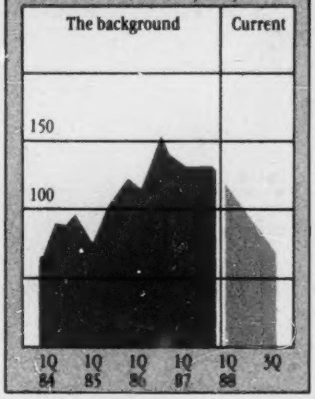
Auto buyers also seem to be headed for a breather. As of now, Detroit pundits are predicting 1989 model year sales of about 9.5 million—down from the 10 million units of the model year just ended.

But there are compensating areas of strength. Thus, in addition to the trade trend noted above there is a strong surge in capital spending. The potential advances here show up best in the machine tool area where year-to-date order totals are now running more than 80% ahead of comparable 1987 levels. Employment, too, seems to be holding up well. The jobless rate is now only in the 5.5% range—with nonfarm payrolls still on the increase.

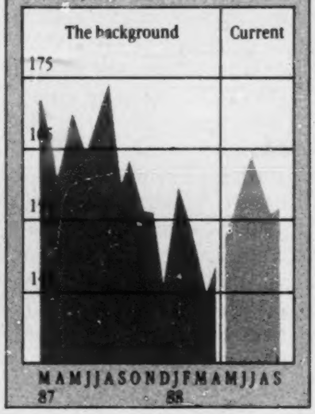
Another sign of continuing strength in the labor

Leading indicators

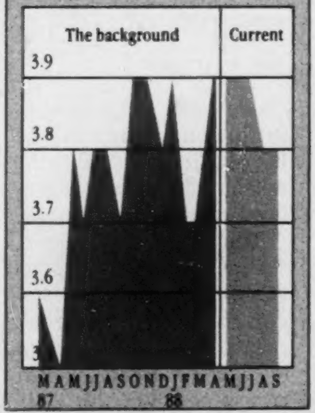
1. Net real imports
(Bill. of 1982 $, seas. adjusted)

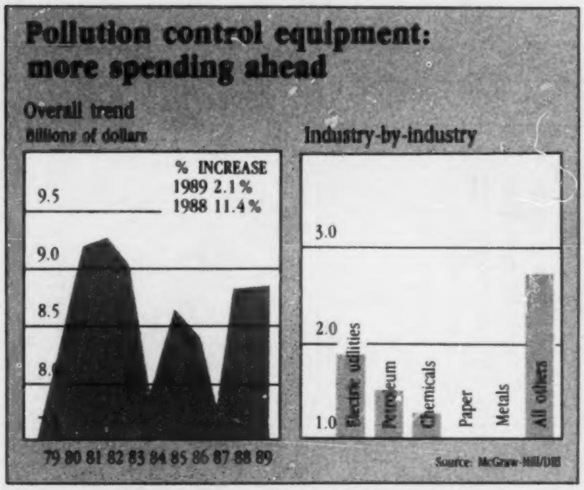


2. Construction awards
Index: 1982 = 100



3. Factory overtime
(Hours)





Pollution control equipment: more spending ahead

Source: McGraw-Hill/DRI

sector: factory overtime. It's now up in the 4.0 hour range—the highest such reading in years. It means that pressure to get goods out into the marketplace is as great as ever.

How much 1989 growth then? One estimate comes from a new survey by the National Association of Business Economists. They expect growth from 4Q 1988 to the 4Q 1989 to come to around 2%—not all that much under the 3.1% advance racked up over the 12-month period now ending.

More pollution control equipment to come

There's still a lot of anti-pollution gear to be bought—despite all the talk about reduced government rules and regulations.

This year, for example, American industry expects to shell out nearly $8.8 billion for this kind of basically non-productive equipment. The figure—culled from a new McGraw-Hill/DRI survey—represents a hefty 11.4% increase over 1987 levels.

These are current dollar figures, but even if you factor in a few percentage points for inflation, this represents a fairly substantial gain. It's also a lot more than suggested a year ago when preliminary estimates for 1988 pointed to only a 5.5% advance.

The projections for upcoming 1989 (now put at 2%) are also likely to be revised upward. For one, not all plans for that year have been finalized. Public concern over toxic waste and acid rain are also likely to add to overall totals in the months and quarters immediately ahead.

As might be expected, the biggest dollar amounts will be spent by the electric utility, chemical, and petroleum industries—with the paper and metal sectors coming in fourth and fifth, respectively.

The study also puts this spending into proper perspective—by expressing anti-pollution gear outlays as a percent of total capital spending. And once again most of the dollar leaders dominate. More to the point: The five sectors noted above will be earmarking anywhere from 6-9% for pollution control equipment—more than three times the less-than-2% figure noted for all U.S. industry.

Add in other environmental outlays (notably for health and safety)—and some of these industries will be spending more than 10% of their capital bills for non-productive gear. Examples: The combined pollution-safety-health percentages for the nonferrous and chemical industries this year are put at 13% and 12%, respectively.

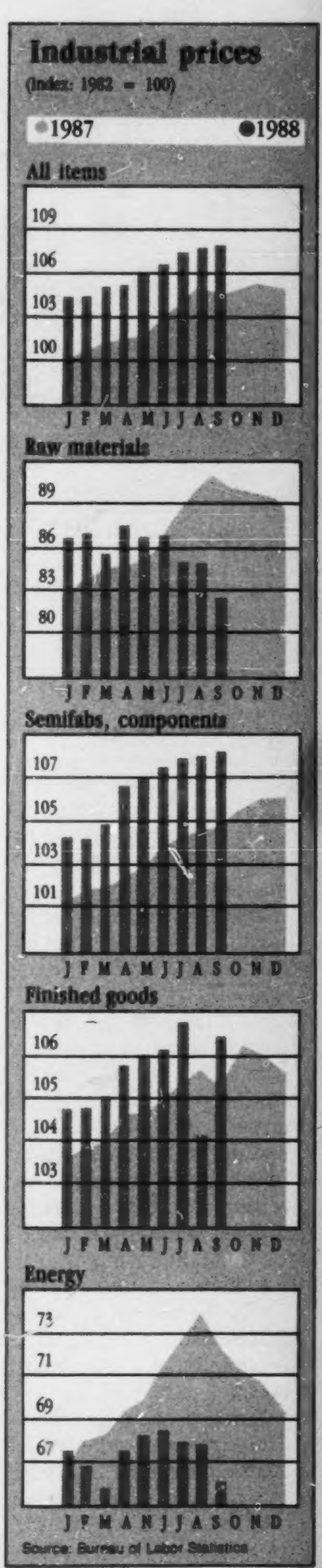
CURRENT PRICES

Energy gives prices a breather

Industrial producer price averages took a breather last month—actually racking up a 0.2% decline.

But hold off before breaking out the champagne. All of the improvement was due to a sharp drop in the energy sector. Remove this factor, and the slow price rise of other recent months showed no signs of ending.

Coming back to energy, the steep decline (2.7% over a 30-day period) was sparked by a big fall in crude petroleum. This apparently had a ripple effect—with softer tags spreading to a wide range of products, including gasoline, natural gas, home heating oil, liquid petroleum gas, and jet and diesel fuel. These more than offset small advances in



Industrial prices

(Index: 1982 = 100)

Source: Bureau of Labor Statistics

electricity and residual fuel.

Much more representative of the moderate upward trend were increases in chemicals. Boosts were reported in organics, inorganics, plastic resins and paint.

A similar pattern was observed in some component part areas. Thus aircraft engines and parts, motors and generators, and bearings all rose during the month.

The metal picture was more mixed. Aluminum, steel and most precious metals seem to be doing little more than marking time. But lead, zinc and copper all moved up—with the copper increase being rather substantial.

Also on the worrisome side was a fairly large 0.8% increase in capital equipment tags—probably reflecting a strong increase in demand.

This month's breakdown

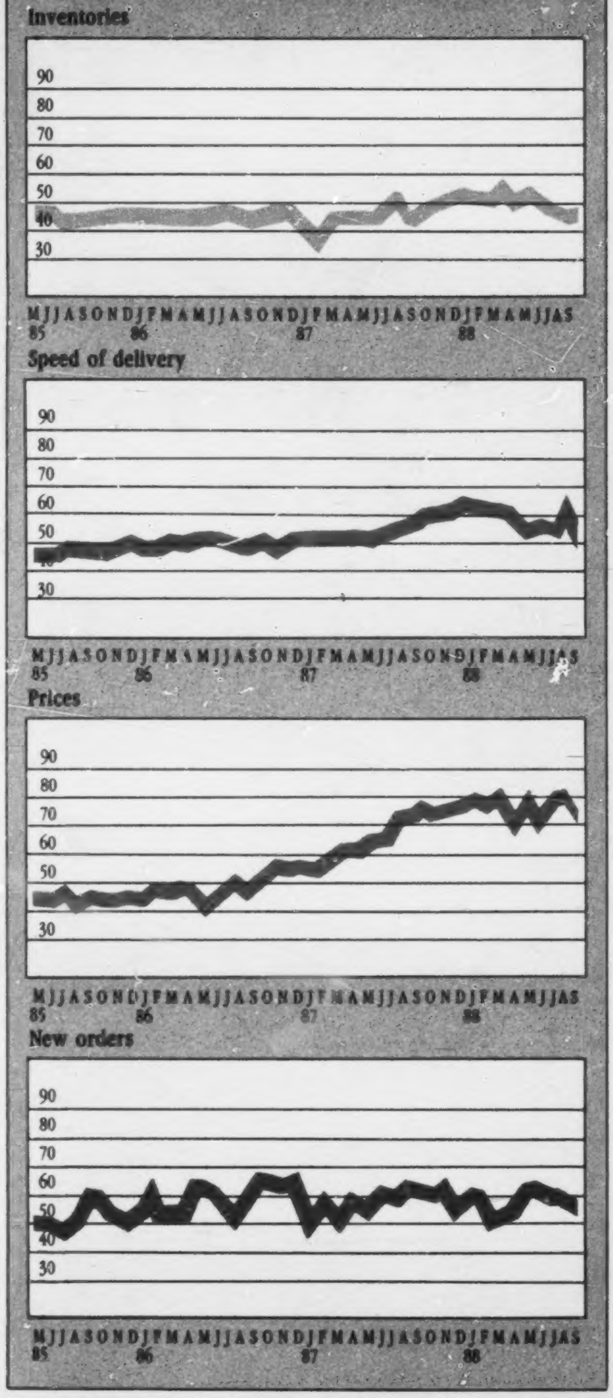
Index: 1982 = 100

	Latest level (Sept)	% change from: Month ago	Year ago
Bearings	117.7	4.1	8.9
Bolts, nuts, etc.	106.9	−0.1	3.6
Chemicals, inorganic	102.7	0.2	8.9
Chemicals, organic	112.3	0.2	18.1
Concrete products	109.9	−0.3	0.5
Corrugated cartons	111.6	0.4	8.8
Cutting tools, small	107.0	0.0	0.8
Electric lamps (bulbs)	122.9	0.6	0.2
Electronic components	118.1	−0.1	2.8
Fans and blowers	113.3	−0.1	2.3
Foundry and forge products	110.5	0.3	4.2
Fuel oil (residual)	40.4	2.0	−26.1
Furniture, commercial	125.8	0.6	5.6
Gasoline	57.5	−7.6	−5.9
Glass, flat	110.7	0.5	3.0
Glass containers	112.1	−0.1	−0.7
Gypsum products	110.7	2.5	−6.8
Hand tools	121.0	0.2	3.9
Hand tools, power driven	112.0	0.0	2.7
Industrial furnaces	122.0	0.4	6.6
Integrating and measuring instruments	114.2	0.0	0.4
Internal combustion engines	112.2	0.3	2.8
Lubricating oil	105.4	0.6	7.7
Lumber millwork	122.7	0.0	3.2
Material handling equipment	108.6	0.6	4.0
Metal containers	111.8	1.4	1.8
Metal mill shapes (nonferrous)	133.2	1.6	22.2
Metal tanks	106.6	0.0	9.2
Motors and generators	122.7	0.7	5.6
Motor trucks	120.1	−3.3	4.3
Office and store equipment	107.6	0.0	2.1
Paperboard	136.3	1.3	12.4
Paper boxes and shipping containers	125.6	0.6	7.4
Paper office supplies	116.5	1.0	7.9
Paint	113.3	0.4	4.1
Plastic resins	138.9	1.4	21.6
Precision measuring tools	121.4	0.0	4.3
Pumps and compressors	110.0	0.4	4.7
Refractories	114.3	0.3	3.1
Rubber belts and belting	108.2	0.9	4.8
Scales and balances	106.7	0.8	2.6
Steel products	112.0	0.1	9.4
Switchgear	113.3	−0.1	2.7
Textiles, synthetic fibers	98.7	0.9	7.4
Textiles, gray fabrics	114.7	−0.3	4.9
Tires and tubes	94.9	−0.8	4.2
Transformers and power regulators	108.6	−1.1	1.8
Welding equipment	119.0	0.5	7.2
Wire and cable	128.2	1.6	17.2

NAPM procurement trends

(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.



Is steel's bull market over?

The long bull market in steel may finally be coming to an end.

Only 4% of buyers responding to a new NAPM survey, for example, now anticipate a pickup in their current metal purchases over the next three months. That's the lowest figure in two years—and minuscule when compared to the 48% of respondents who contemplate a decline in their steel buys.

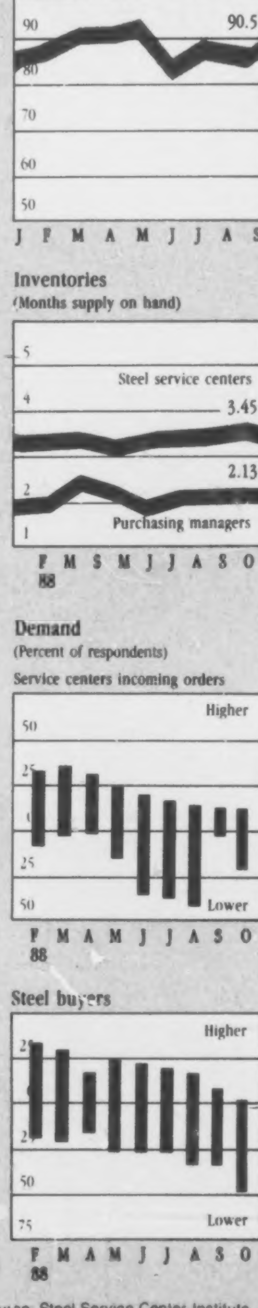
Distributors are also far from bullish—though the difference between those looking for a drop-off in orders (21%) and those hoping for an increase (16%) is somewhat less. But the figures here, repspresenting the results of the latest Steel Service Center Institute (SSCI) survey, can hardly be called optimistic since this marks the fifth straight month that negative forecasts have prevailed.

One of the really weak areas, according to SSCI president Andrew G. Sharkey, is plate. As he puts it, "Plate demand has leveled off. Mills have caught up and leadtimes and reduced availability are no longer problems." On the other hand, he adds that bar, tubing, stainless and alloy products continue to show strong year-to-year gains.

The SSCI survey also suggests that part of the current lackluster picture may be due to inventory retrenchment. Specifically, respondents believe stock levels are out of line with current demand, to the point where 63% (compared to 14% a year ago) feel that their steel tonnages are too high compared to shipments.

Buyers aren't all that satisfied with inventories either. Thus 55% want to cut stocks over the next six months—far outweighing the 4% who are still contemplating additions.

One reason for this buyer attitude, aside from still relatively high months' supply readings, is the fact that availability is no longer any problem. At latest report, buyers were worried only about four of the 10 product lines monitored each month by the NAPM committee.



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

This is in sharp contrast to the first five months of the year when virtually all items were regularly being put on the "worry" list. Indeed, the only products that are receiving multiple mention these days are plate, bar and hot-rolled sheet.

Worry about hot-rolled sheet may also be exaggerated. Reason: Hot-rolled sheet prices on the distributor level have slipped in recent months—suggesting that things may be easing here, too.

While on the subject of prices, there are also signs that the strong general uptrend of the past year or so may be running out of steam. In any event, only 25% of service center respondents now expect price boosts over the next six months.

Equally significant, some 14% of those same distributors are now thinking in terms of price decline by early 1989. That's the biggest such percentage in years.

The improving supply and price outlook also could put a crimp in future imports.

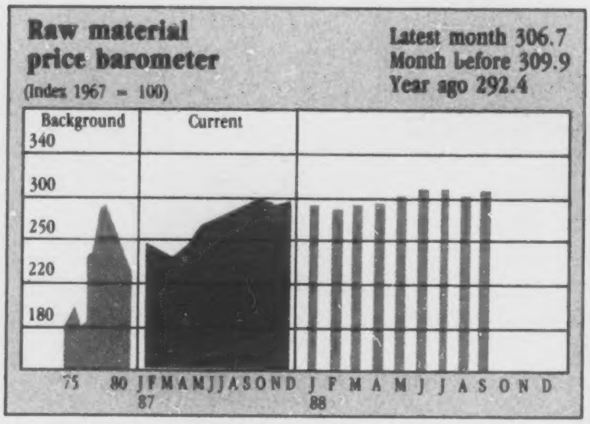
Another factor behind the import trend could be the continuing absence of overseas bargains. Most distributors and buyers say there's little advantage these days of opting for imports. **PW**

Import prices
(compared to domestic)

Steel buyers

ABOVE 54%
SAME 27%
SLIGHTLY BELOW 19%
SUBSTANTIALLY BELOW 0%

Service centers (carbon)
ABOVE 2%
SAME 83%
5-10% BELOW 15%
10-20% BELOW 0%
OVER 20% BELOW 0%


Raw material price barometer
(Index 1967 = 100)

Latest month 306.7
Month before 309.9
Year ago 292.4

LATEST SPOT MARKET PRICES

FERROUS METALS	Latest price	Previous month	Year ago
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	16.50	16.50	16.50
Steel, bars, Pitts., cwt.	16.50	16.50	16.50
Steel, bars, C.R., Pitts., cwt.	19.45	19.45	19.45
Steel, plates, Pitts., cwt.	22.75	22.75	19.75
Steel, plates, H.R., Pitts., cwt.	22.75	22.75	19.75
Steel, sheets, C.R., Detroit, cwt.	28.15	28.15	26.90
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65

NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	1.010	1.260	.835
Antimony, N.Y., dealer, lb.	1.05	1.05	1.12
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	1.88	1.71	1.50
Brass, yellow, [sheet], lb.	1.84	1.66	1.45
Cadmium, N.Y., dealer, lb.	6.20	7.20	2.25
Copper, electrolytic, wire bars, refd., lb.	1.25	1.07	.86
Copper sheet, over 24 in., lb.	1.97	1.79	1.59
Lead, common, N.Y., lb.	.40	.38	.42
Magnesium, pig ingot, [99.8%], lb.	1.58	1.58	1.53
Mercury, 20 fl. lots, N.Y., fl.	310.00	360.00	355.00
Molybdenum, oxide, dealer, lb.	3.49	3.48	2.92
Nickel, cathode, dealer, lb.	4.98	6.00	2.48
Platinum, dealer, oz.	520.00	528.00	567.00
Silver, N.Y., oz.	6.40	6.54	7.56
Tin, N.Y., dealer, lb.	3.36	3.49	3.15
Zinc, Prime West, East St. Louis, lb.	.69	.69	.42
Zinc, die casting alloy, No. 3, lb.	.775	.765	.475

PAPER			
Uncoated book #3 offset, ton	955.00	955.00	860.00
Watermarked bond, ton	1080.00	1080.00	985.00
Gummed sealing tape, carton	17.98	17.78	17.34
Grocery sacks, ton	460.00	460.00	410.00
Solid bleached paperboard, ton	685.00	685.00	620.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	380.00

TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.276	.284	.246
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.20	1.20	1.24
Cotton middling, 1", N.Y., lb.	.505	.505	.654
Printcloth, 48", 60x80, N.Y., spot. yd.	.480	.500	.670
Army duck, 37", 13 oz., yd.	1.51	1.51	1.51
Blended printcloth, 64", 78x54, yd.	.66	.68	.95
20s combed yarns	1.96	1.96	2.03
Wool 64s, Staple, lb.	4.50	4.50	2.90

CHEMICALS	Latest price	Previous month	Year ago
Acrylonitrile, tanks, lb.	.360	.395	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	91.00	91.00	105.00
Benzene, petroleum, tanks, Houston, gal.	1.18	1.08	.92
Caustic soda, 76% solid, drums, carlots, cwt.	26.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.735	.735	.810
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.58	.58	.32
Naphthalene, crude, tanks, lb.	.22	.22	.22
Phthalic anhydride, tanks, lb.	.35	.35	.32
Polyethylene resin, low density liner film grade (market place), lb.	.515	.515	.345
Polypropylene, homopolymer grade (market price), lb.	.510	.525	.440
Polystyrene, general purpose grade (market price), lb.	.600	.600	.520
Polyvinyl chloride, pipe grade (market price), lb.	.440	.440	.365
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.470	.450	.400
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	132.00	132.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.950	.870	.800
Xylene tanks, gal.	1.00	.91	.75

BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	329.80	336.00	338.90
Lumber 2x2 pine, mbf, cl	314.70	318.45	334.45
Plywood, plyform, ¾", msf, cl	569.20	576.95	584.60
Plywood, ⅝", msf, cl	387.70	388.35	391.00
Cement, bulk, ton, tl	64.42	65.48	63.73
Sand, ton, cl	7.16	7.47	7.14
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.41	49.01	49.13
Crushed stone, 1½", ton, cl	6.99	7.41	8.32
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl	91.99	92.45	90.33
Gypsum sheathing, ½"x1"x8", msf, tl	228.43	228.43	228.46
Brick, common, per thousand, tl	229.22	229.22	198.26
Asphalt paving, AC-20	115.64	116.70	139.34
Concrete sewer pipe, 12", prem. joint, per foot, cl	7.22	6.98	7.50

FUELS			
Crude oil (W. Tex Int Cush), bbl.	14.10	14.25	19.75
Diesel (reseller rack, Chi), gal.	.388	.448	N.A.
Fuel oil No. 2 (N.Y.), gal.	.401	.421	.559
Fuel oil No. 2 (Gulf spot), gal.	.374	.405	N.A.
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	15.00	16.00	N.A.
Gasoline (reg lded NY), gal.	.498	.465	.551
Gasoline (reg unlded NY), gal.	.478	.445	.539
Kerosene (reseller rack, Chi), gal.	.435	.493	N.A.
Propane (Mt. Belvieu, Tex), gal.	.198	.205	.265

SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	117.00	117.00	114.00
Steel, No. 1 hvy., dlvd., Chi., ton	115.00	115.00	115.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.060	.920	.785
Copper, No. 2, East, wholesale buy, dlvd., lb.	.925	.830	.700
Brass, red, East, wholesale buy, dlvd., lb.	1.020	.880	.745
Brass, yellow, East, wholesale buy, dlvd., lb.	.470	.470	.365
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.610	.665	.510
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.700	.750	.575
Zinc, old, East, wholesale buy, dlvd., lb.	.240	.240	.200
Lead, clean solids, East, wholesale buy, dlvd., lb.	.245	.225	.275
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	20.00	25.00	35.00
Paper, old corrug. box, dlr., N.Y., ton	5.00	5.00	20.00
Old newspapers, Chi., ton	5.00	10.00	N.A.
Old white ledger, Chi., ton	85.00	85.00	N.A.

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

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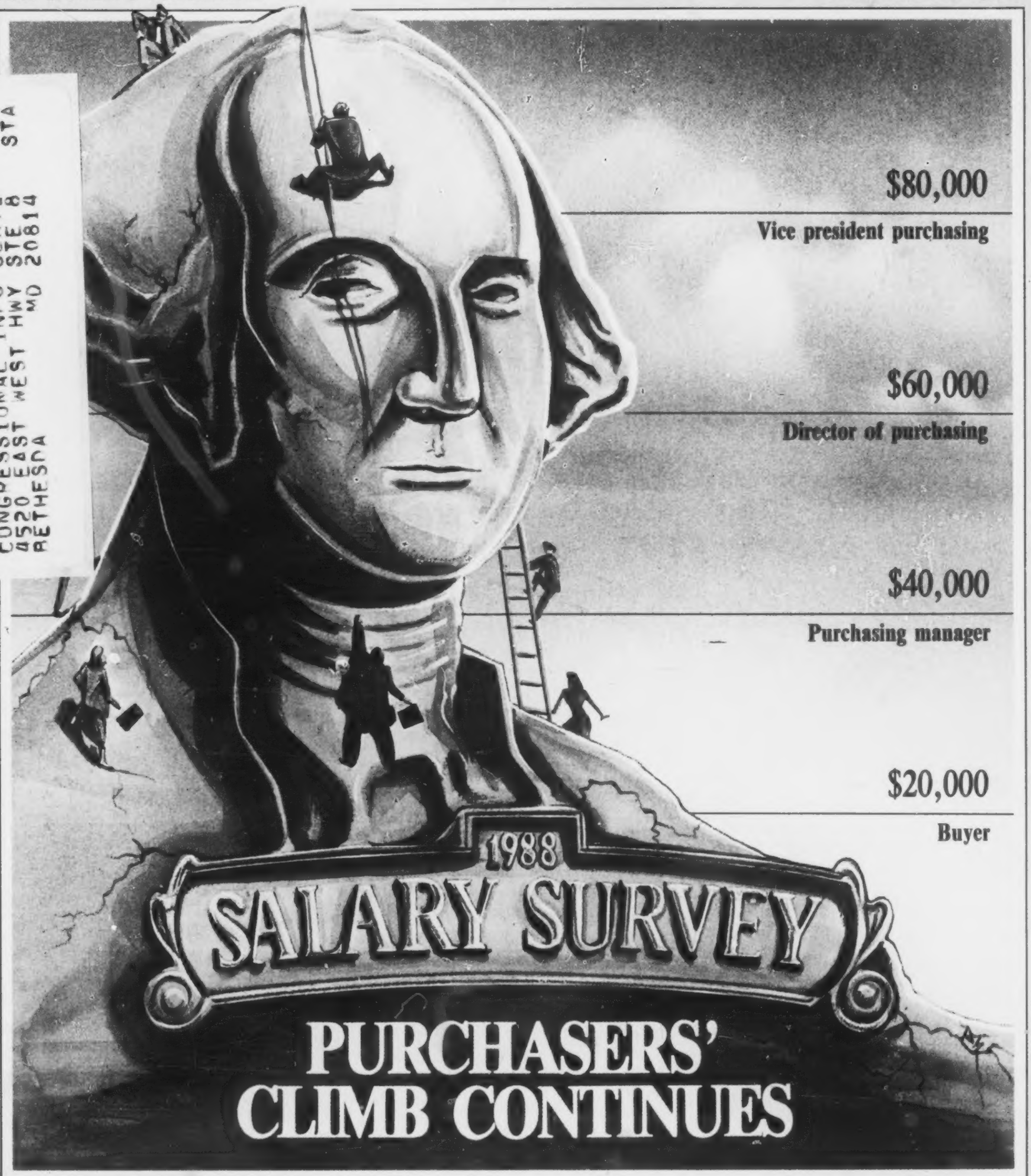
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1988
SALARY SURVEY

PURCHASERS' CLIMB CONTINUES

PW's 1988 Buyer of the year

New, revised transportation forecast • First look at 1989 prices

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50 Survey of the month: Prices

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57 Planning for purchasing

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58 Fighting an unfair price increase—part II

Negotiations expert Bob Benedict details strategies for successfully contesting sudden and unexpected price increases. What leverage does the buyer have? Quite a lot.

Cover Illustration and Design by Andy Shive.

PurchasingWorld

Airlines are willing to cut a deal for you

"There is an increased willingness on the airline carrier's part to negotiate deals directly with corporations based on volume between city pairs," says Jeanie Thompson-Smith, president of Topaz Enterprises, Inc., Portland, OR. A recent study conducted by Topaz shows that 10.5% of the tickets audited in the second quarter of 1988 were booked in unpublished, negotiated airfares.

To bargain with airlines, says Thompson-Smith, "The corporation must identify the carriers serving the markets they frequent, and be able to provide volume statistics on specific city pairs in order to negotiate a deal." These findings are documented in the Topaz Corporate Fare Guide which consists of four quarterly reports and their *Handbook to Lowest Fares*. The annual subscription fee is $95. *Topaz Enterprises, Inc.* **Circle 100**

Independent guide to buying fax machines

To help purchasing managers make intelligent selections of facsimile machines, Daniel Fishman and Elliot King have written, *The Book of Fax: An Impartial Guide to Buying and Using Facsimile Machines*. Neither author is connected with any fax supplier: Fishman is founder of a computer and technology consulting firm; King teaches communications at the University of California at San Diego.

For first-time buyers the book will help evaluate whether you need a fax, determine which would be the most economical fax, show the best fax features, and help you avoid common, costly buying mistakes. *Ventana Press.* **Circle 88**

Simple product can cut clean-up costs by 30%

Time and motion studies show that industrial clean-up costs can be reduced by nearly one-third using the "bag ringer" being marketed by Gulf-Pacific Marketing. The device allows the user to attach any size plastic garbage bag to the ring-shaped hoop with its elastic core. The device then holds the plastic garbage bag in an open position and stabilizes it so the user can easily drop debris into the open bag. *Gulf-Pacific Marketing.* **Circle 101**

100% accurate fingerprint identification system

A compact, self-contained system that quickly confirms or rejects the identity of a contractor, supplier, visitor or other pre-authorized person by verifying one fingerprint is available from Comparator Systems Corp.

The Comparator ID-1 verification system automatically compares the fingerprint taken at the time identification is sought with a fingerprint on a file card. In three to five seconds the identity is verified by a green light or rejected by a red light.

The verification unit takes less than 0.4 cubic feet of space and weighs 17½ pounds. *Comparator Systems Corp.* **Circle 102**

Want a robot? Now you can "rent a robot"

For a flat amount of $580 per month, regardless of the number of shifts or hours worked, you can rent a robot from E-Mat. This translates into $3.35 per hour for a single shift, $1.68 for two shifts, and $1.12 hourly for three-shift operations.

The firm offers light, medium and heavy robots, with a capacity of 10, 30 and 200 pounds respectively. According to Fred Nussbaum, director of sales, "American manufacturing still views robotics as an expensive, highly specialized and risky alternative to traditional special designs or manual operations." *E-Mat Corp.* **Circle 87**

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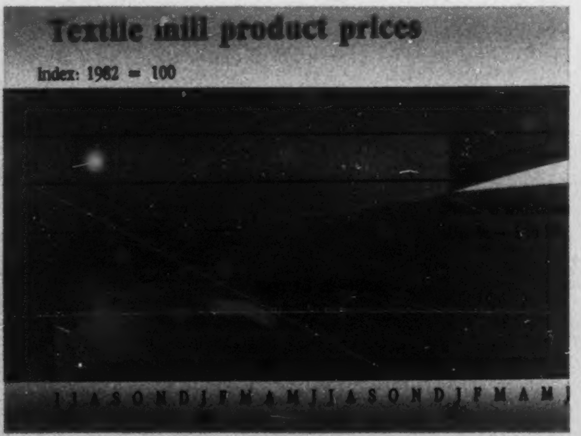
Apparel slump hurts textiles

CURRENT SITUATION: It's been a lackluster year—with buyers holding back—and demand (as measured by textile mill production) barely equalling last year's levels. And all this despite a fall-off in imports which now look to lag last year by about 8-9% on a square yard equivalent basis. Prices, meantime, have been mixed. A jump in wool tabs has pushed woolen fabrics up. But lower cotton has helped offset rising synthetic fibers.

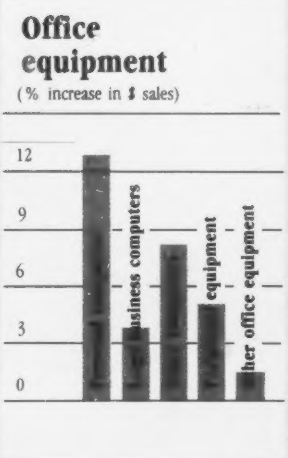
DEMAND: The buying slump reflects consumer reticence to spend on new apparel. Industrial demand hasn't been setting the world on fire either—as auto purchases do little more than mark time. **In general, however, heavier weight fabrics have been softest.** Nor can such apparel fabrics as fleecewear, tricot, woven/knits, and denim be called particularly buoyant. As for 1989, little more than a flat pattern is seen.

SUPPLY: Markets have loosened up considerably and are expected to remain that way—as some fabric inventories remain on the high side. Note, too, that operating rates for the industry have dropped nearly five percentage points from 1987 highs—to under 90% at last report. Imports, despite declines, also remain a factor to reckon with when considering availability. And the industry continues to invest in more efficient equipment.

PRICE OUTLOOK: Little more than a 1% overall advance is projected for the first half of 1989. But averages will hide substantial variation. On the fiber front, for example, polyester, rayon and nylon will continue to go up. Ditto, acrylics which are scheduled for a March hike. But wool tags should level off (albeit at very high levels) and cotton could well edge down given today's high and still-rising stocks.


Textile mill product prices

Index: 1982 = 100


Office equipment

(% increase in $ sales)

Computer, other equip prices slowing

Demand gains for computer and other office machinery may be slowing down. In-Stat, a Scottsdale, AZ consulting firm, puts 1989 price increases (in current dollars) at only 12.7%, far under the 37.0% boost recorded last year. Add in more expensive computers, and the gain drops down to only 7.2%. Non-computer office equipment also faces rough sledding, with only a 1% advance envisioned. All this suggests new price uneasiness—especially for memory chips which are already beginning to ease up.

Copper supply still iffy

Prices remain extremely nervous, as global work stoppages play hob with an already snug supply. But look for some substantial erosion by next spring as supply and demand come back into better balance and as some of today's double and triple ordering dries up. While it's always hard to pin a price on the volatile metal, most fundamentals would seem to point to an average price of around 85¢/lb in 1989. While about 30¢/lb under this year's estimated average, that would still be high enough to insure a good bottom line performance by most world producers.

Steel prices weaken

The substantial price uptrend of the past year or two shows signs of running out of steam. Weakness is also reported in oil country tubular items—and resistance is expected on a new $25-30/ton bar increase. For the longer pull, the composite price which rose by more than 5% last year and in excess of 7% during the current year, will be lucky to see a 3% advance in 1989. Reason: Expectations of declining shipments which will only reach about 77 million tons over 1989 (*versus* 82 million in 1988).

Flying will cost more

Some business trips will be costing a lot more. Most carriers are eliminating discounts on tickets purchased 3-7 days in advance and on unrestricted one-way fares. Typical: Some tickets from Chicago to Los Angeles, previously costing from $239 to $342, now go for an eye-opening $525. Unchanged, however, are discounts offered on 14-day advance purchase tickets and in other fares with long leadtimes. It's doubtful many businessmen can schedule that far ahead to take advantage of these substantial bargains.

The mail picks up

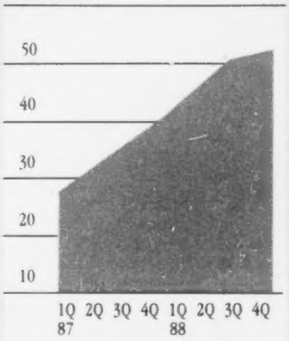
The U.S. Postal Service has or is about to implement these new service improvements:

- On-demand Express Mail pickup (already implemented)
- Computerized cash registers to speed complex postal window transactions (already available in 40% of the nation)
- Customer-operated weighing and rating machines (a 5-year program just getting underway)
- The $8.75 Express Mail stamp (already available)
- Stamp availability in retail stores (in some outlets and being expanded)
- Stamps at automated teller machines (testing in Seattle)
- Buying Express Mail postage with consumer credit cards (being tested)
- Collect-on-delivery options for Express Mail (already available)
- Paying for Express Mail with check deposited in collection box with mail (testing to begin soon).

LDPE prices ease

Prime resins remain unchanged, but there has been a big increase in the supply of off-spec material from resellers and traders—originally destined for export. There has been a sharp decline in film demand—thereby forcing a 5% fall-off in prices. Affected are industrial applications and agricultural film—with another 5-10% price decrease possible, particularly on the East and West coasts, where most of the excess extrusion capacity is centered.

Low-density polyethylene liner
(1989 vs. 1988) (¢/lb)



Auto prices reflect improved quality

One consolation for higher 1989 sticker prices—up $560, on average—is that one-third of this boost, according to a new government report, reflects increased quality rather than "pure" price increase. Roughly $183 of the advance can be traced to decisions to make some optional equipment standard and to make improvements in powertrains and corrosion protection. Another $23 reflects the installation of more passive restraint devices.

Aluminum ingot levels out

CURRENT SITUATION: Ingot has temporarily leveled off after falling from the high $1.25/lb level of last spring. But quotes (still well over $1/lb) are some 25-30% above a year ago. Fabricated tags are up considerably less—especially in such competitive areas as can sheet which have been frozen at current levels through first quarter 1989. On the other hand, some increases are scheduled for early next year—notably a 10¢/lb boost on 6061 flat-rolled products.

DEMAND: Overall domestic shipments should total 16.5 billion pounds this year (*versus* 16.2 billion in 1987)—and grow to about 16.7 billion in 1989 (setting a record for the fourth consecutive year). And the same pattern is seen for the entire Free World where this year's estimated 14 million metric ton consumption total represents a 2%-plus gain over 1987. And again a small advance to 14.3 million tons is projected for 1989. As for specific markets—1989 will see a 7% increase in beverage cans. Transportation will also remain strong.

SUPPLY: Don't expect any dramatic easing up as still-increasing demand offsets to a large extent the restarting of mothballed potlines. Sign of the times here: Free World stocks of primary ingot remain near their historic lows. A further jump in the global operating rate (from 95.6% this year to 98.1% in 1989) could add 500,000 tons to the overall supply. But some 300,000 tons of this will be chewed up by increasing consumption.

PRICE OUTLOOK: A modest edging down in ingot can't be ruled out for the next few quarters—given the slowly improving supply situation envisioned. But further scattered advances in fabricated products are still likely for early 1989.

Import prices taking a breather

The long climb in import prices seems to be taking a temporary breather.

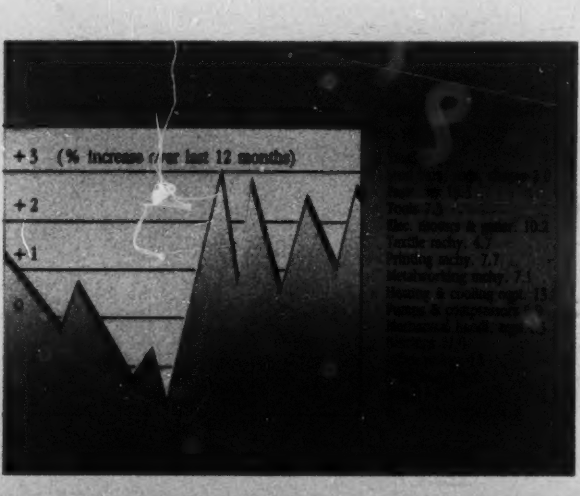
Even if the sharp decline in fuel is factored out, averages are still down 0.6% from three months earlier. That's the first such drop since early 1985—as seven of eight key sub-groups edged lower.

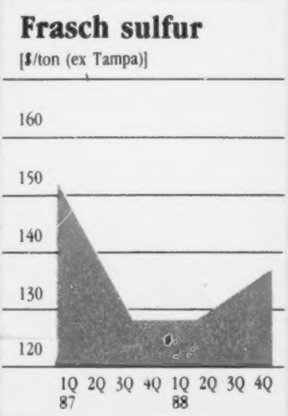
Credit the drop-off to the recent leveling off of the dollar. But since the dollar is beginning to ease again, the upward climb in import quotes could resume as early as first quarter 1989.

Even with the latest decline, average import tabs (ex fuel) are 7.2% ahead of a year ago—and better than 26% above levels prevailing in 1985 when prices began to rise.

Meantime, here's a more detailed rundown of the weakening trend noted over the past three months:

- **Crude materials:** Prices dropped 1.8%—as small boosts in pulp and wastepaper were more than offset by sharp declines in crude rubber and miscellaneous crude materials.
- **Chemicals:** The uptrend continued here—with averages up another 2.7%. Largest boosts were in drugs (5.1%), miscellaneous chemicals (4.6%), and organics (3.5%).
- **Intermediate products:** A fractional 0.1% drop followed a big 6.3% jump in the previous quarter. Deceleration was led by nonferrous metals, wood manufacturers, textiles, and nonmetallic mineral manufacturers. But steel was up slightly.
- **Machinery and transport equipment:** This category, most susceptible to dollar fluctuations, dropped 0.5% —the first fall since March 1985. Large decreases hit specialized machinery (4.1%), general industrial machinery (2.7%), and metalworking machinery (2.1%). Office machinery was off 0.9%. But a rise in electronic components pushed up the average for electrical machinery.





Sulfur markets stay strong

Strong markets, aided by demand from industrial chemicals and phosphate fertilizers, are making for the second price increase of the year. New Frasch quote (ex Tampa) is moving up $6/ton, to $138/ton. Adding to the upward push are the diminishing reserves of Frasch sulfur—1,312,000 metric tons at latest report *versus* 2,424,000 metric tons a year earlier. The increasing importance of recovered sulfur, with the latter now accounting for 70% of the nation's productive capacity, is a trend worth noting. This, in turn, suggests that over the long pull, producers of recovered material will be setting the price tone.

Paper and products upward

The trend is still up—with increases recently posted on uncoated free sheet, coated free sheet, forms bond, industrial tissue papers and bleached bristols.

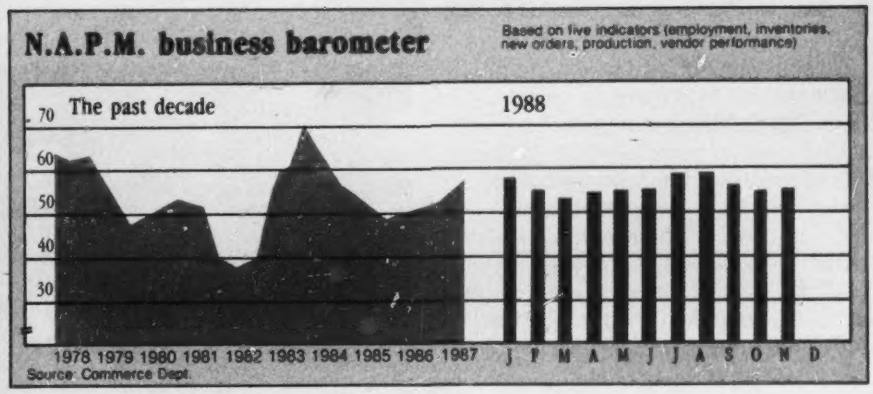
Two price tests also loom ahead for early next year. The first is for linerboard, where one producer has already announced hikes over the existing $410/ton level. But this may not hold as supplies begin to ease up. Also questionable is a newsprint boost which has already been reduced (from $45 to $30/metric ton) and delayed until February, 1989.

Cobalt prices exceed expectations

African producers are boosting lists to $8.40/lb (a rise of 12%). This is somewhat above the $8.00/lb level that many buyers had been expecting. But a rosier note is the carrot being extended by producers—namely a 2-year price guarantee through 1990—one year more than normally offered. Also most big buyers will continue to get discounts from this fixed producer quote. The price rise is putting upward pressure on merchant metal which has moved up above the near $7/lb levels of recent months.

PVC holds steady

Pipe grade resin quotes are holding steady at 44¢/lb. Not so the major end-use product—pipe. Prices have slipped some 11-14¢/lb since mid-summer—pressured by a seasonal weakness in construction and loss of market share in the large diameter pipe market to ductile iron.



Source: Commerce Dept.

KEY ECONOMIC TRENDS

PMs will increase coatings buys

Purchasing managers will be buying a lot of coatings over the next few years. A 6.2% annual rate of advance in demand, for example, suggests over $10 billion in purchases this year and as much as $13.5 billion by 1992.

This projection, supplied by the Freedonia Group of Cleveland, also has some reassuring news about prices. Specifically, the average quote (now near $10/gallon) is expected to advance only 3.9% a year—considerably under the 5% increase of the past decade.

Buyers can also look forward to new formulations to meet stringent environmental curbs, higher performance finishes with improved properties, and continued development of solventless technologies such as powder coatings and radiation curable coatings. Also, water-based types will continue to displace oil-based products.

Architectural coatings, rising 5% a year, will show the slowest growth because of 1) market saturation, 2) increased longevity of the finishes, and 3) alternative materials such as glass, paneling, and plastic siding. OEM product coatings, rising 6.9% annually, will do better.

Moreover, zero in on powder coatings, and double-digit growth seems possible. In any case, technological advances here will encompass low-cure powders, faster curing processes, and improved field application systems for such markets as aluminum extrusions, outdoor furniture, and autos.

Special purpose coatings will do well, too—because of growing demand for high performance, sophisticated coatings for specialized applications such as bridges and industrial maintenance.

The study also notes that substantial merger and acquisition activity fueled growing capital requirements and increased product sophistication. Implication: PMs will be dealing with increasingly large suppliers in the years ahead.

U.S. loses dubious distinction

The United States is no longer the world's highest labor cost country.

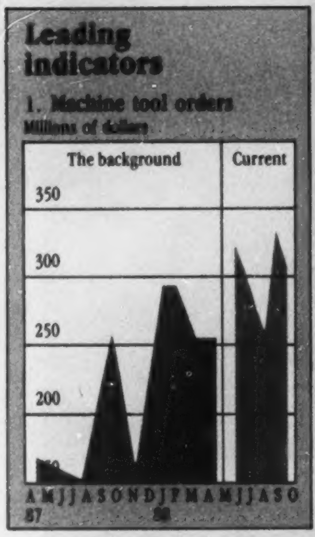
That dubious distinction now goes to Switzerland—with pay rates in many other European nations at or above our levels. Even Japan no longer has all that much of an edge over this nation when it comes to pay rates.

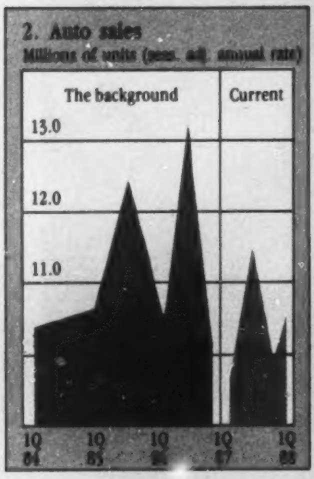
Much of the change can be traced to the drop in the dollar *vis a vis* other currencies over the past few years. But another factor has been the smaller-than-overseas pay increases that U.S. workers have been getting.

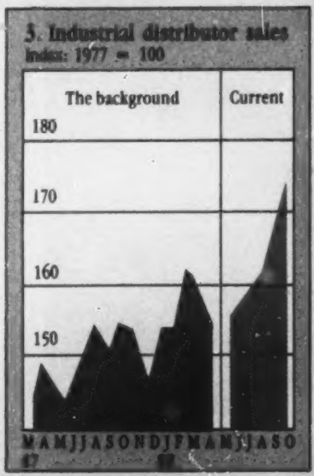
The new figures, just released by the Bureau of Labor Statistics, also suggest that for the 26 countries surveyed, the average pay was 76% of the U.S. level—10% higher than in 1987.

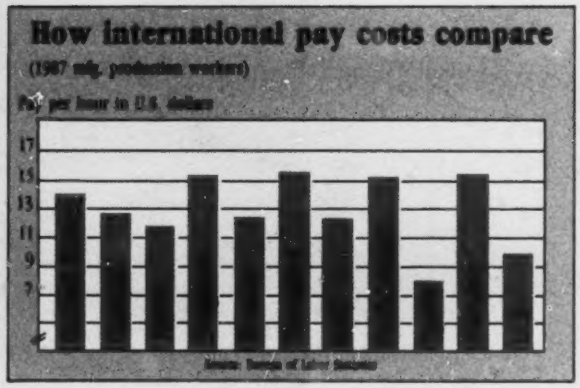
Taking a closer look at the various countries—here's how they compare to the average $13.44/hour U.S. rate: Coming in at higher figures (in descending order) are Switzer-

Leading indicators









land—$17.14/hour; Germany—$16.87/hour; Netherlands—$15.46/hour; Sweden—$15.12/hour, and Belgium—$15.02/hour.

The entire European Economic Community has a comparable rate to ours—$13.25/hour to be exact. And even Japan—clocked in at $11.14/hour—isn't that far behind. The latest 17% Japanese lag compares to a 50% lag two years earlier (before the yen began to appreciate relative to the dollar).

All the above is not to say that Third World countries don't have a big pay advantage.

CURRENT PRICES

1988 ends optimistically

The year is ending on a relatively optimistic note: The economy is growing, but not at such a fast pace as to precipitate any "crash landing" later on. And inflation, despite six years of uninterrupted growth, is still pretty much under control.

Reassurance of continued near-term advances comes from the latest NAPM barometer reading (see chart). The latest figure has actually moved further above the neutral 50 zone—but again not so far as to endanger the basic uptrend.

Also encouraging are predictions for an improving trade balance. The Treasury Department, for example, feels that the import deficit will continue to shrink through 1989 even without a further decline in the dollar.

Two factors are behind this optimism. One is that there have been fundamental changes by industry and labor—to cut costs and boost quality. This has to enhance the nation's long-term competitive position.

Then there's the new generation of foreign-owned factories being built in the U.S. This means we will be turning out increasing volumes of goods that otherwise would have to be imported.

Another positive factor in the overall outlook has to be the still-strong capital spending trend. New anticipation surveys suggest this will be continuing into 1989. So do recent gains in machinery orders. On the latter score, machine tool bookings at last report were running close to 80% above the comparable month of last year (see chart). And backlogs (now over $2 billion) are more than double the just-under-$1 billion level reported at the beginning of 1988.

Equally important, the advance here seems to be broadly based—covering a wide cross-section of American industry. Also noteworthy: Almost nobody is canceling previously placed orders.

The consumer sector can hardly be characterized as being ebullient. But even here some near-term improvement is likely. More to the point: Consumer confidence, after sagging early this fall, is again on the rise. Thus the widely monitored Conference Board index of consumer attitudes rose by more than 6% over the latest month.

This shows up in auto sales which, while below recent highs, are being maintained at a respectable 10.5 million annual rate (see chart). And this is likely to continue, for plans to buy new cars remain at relatively high levels.

Another sign that things are going well: Industrial distributor sales—a lead indicator of near-term factory production plans—has continued to advance (see chart). The figures are expressed in current dollars, But even if you take out the inflation factor, the gains remain impressive.

Unemployment remains low and job roles continue to increase. And they're likely to remain on the rise—given the still impressive number of want-ads appearing in our daily newspapers.

More and more economists are re-thinking their earlier predictions for a downturn sometime in 1989. As one puts it, "The 6-year old expansion could be stretched—for one year, for two years, and maybe even for three if we play our cards right."

That's why virtually all first half 1989 econometric forecasts are now calling for continuing gains. The consensus: Growth (as measured by real GNP) will be advancing at about a 2-3% annual rate over this six month period. And preliminary estimates for the second half are almost as bullish.

Industrial prices rising slowly

Industrial price increases continue in the tolerable range—as overall averages this past month rose by 0.2% (2.4% annual rate).

While another decline in energy tags helped keep the advance down, some help also came from other sectors. Worth noting in this respect: Of the 50 or so subgroups monitored every month by ***PurchasingWorld*** magazine, an impressive two out of five either remained unchanged or edged lower.

Coming back to specific areas—declines in the energy sphere were recorded for crude petroleum, jet fuel, liquid petroleum gas, and gasoline.

Only natural gas managed to rise. In all, energy averages fell 2.4% over the past month and are now more than 9% under year-ago levels.

Also encouraging (as far as buyers are concerned) was the leveling off in capital equipment after a 0.8% jump the previous month. The only products bucking the easing here were trucks, paper industry machinery and switchgear—all of which showed considerable advances.

Elsewhere, industrial chemicals—sparked by organics—showed a 2.0% advance. Plastic resins and paints also continued to rise, though at a considerably slower pace than in previous months.

Paper products kept rising, too. Increases over the past month hit paper office supplies in paperboard—with the latter now 12% above a year ago. Corrugated, however, took a breather—actually edging lower after the nearly uninterrupted boosts of earlier this year.

Metals were basically mixed. Aluminum slipped a bit, as did most precious metals. But steel moved slightly higher, and copper (faced with supply problems) continued going through the roof.

One surprise was the lack of any softness in construction materials. Increases were reported for nonferrous wire and cable, millwork, wiring devices, asphalt roofing and gypsum products. These more than offset small declines in plywood and plastic construction materials.

But the consensus here is for a general weakening over the next few months—on a combination of a seasonal demand fall-off and the general trend toward reduced construction activity.

STEEL SCENE

Steel gets more competitive

Steel buyers can probably look forward to more competitive markets over the next 12 months.

Reason: Demand will not only flatten out but may even decline. The Steel Service Center Institute is now projecting member shipments of only 23-23.3 million tons for 1988.

The new 1989 forecast is seconded by Michael D. Siegal, chairman of SSCI's communication committee and president of Cleveland's Olympic Steel. Siegal is forecasting about 23 million tons—with the decreases due to lower metal consumption and slightly less service center participation in the flat-rolled end of the business.

But he adds there's one imponderable—namely how much hedging will develop because of second-half wage negotiations at several of the integrated mills.

Siegal also notes the likelihood of a significant eight million ton inventory correction by mills, service centers and end users—a dramatic change after all the recent inventory building. Steel stocks rose an estimated six million tons during the first three quarters of 1988—and are expected to drop by more than two million tons.

It should be noted that this inventory retrenchment may already be underway. Distributor holdings at last report were down to 3⅓ months.

One possible reason for this increasing service center caution: Fourth quarter distributor shipments *vis a vis* a year ago have become relatively flat. And predictions of incoming orders for the next three months are pessimistic (34% predicting declines *versus* only 10% anticipating new gains).

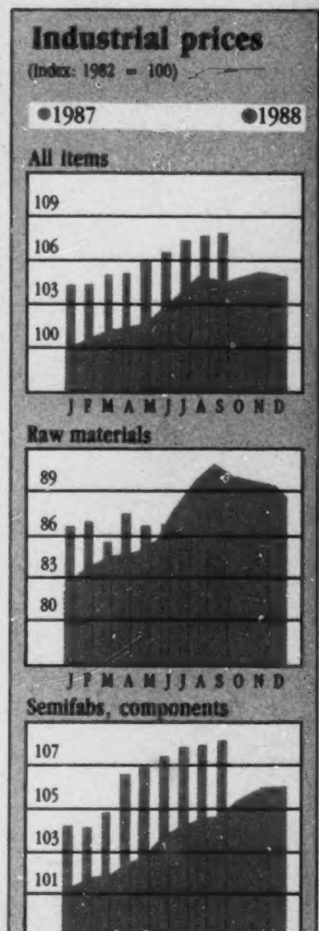
As for individual markets—the auto sector should begin to weaken beginning next spring. And the non-electrical machinery sphere should experience slower growth—as appliance demand takes a breather.

The less than spectacular purchasing pattern is also verified by PMs responding to the latest NAPM steel buyers survey. The projections here: Some 47% expect a decrease in their metal receipts over the next three months—drowning out a minuscule 3% who are planning on bigger buys.

Not surprising, the long leadtimes of a few months back have all but disappeared. And some service centers say material is now actually arriving earlier than contracted for.

As for price, one service center executive reports that flat rolled products are under extreme competitive pressure. In any case, these steel middlemen don't expect to pay much more than they are now for their mill purchases in 1989.

The latest SSCI survey finds only 20% planning



Industrial prices

(Index: 1982 = 100)

Source: Bureau of Labor Statistics

on higher replacement costs over the next six months. That's a far cry from the near 60% reading prevailing as recently as July.

Equally significant, the number of centers expecting declines (23%) now outnumbers those resigned to paying more (20%)—and 5% puts the erosion in the "over 5%" range through mid-1989.

Then, too, price trends are expected to differ depending on supply source. Several service centers feel that some of the smaller mills—hungry for business—may attempt to undercut prices.

While on the subject of prices—more distributors now report import savings. Roughly 25% say price breaks of 6-10% are currently available on carbon steel—the largest such percentage in a year and a half.

This month's breakdown

Index: 1982 = 100

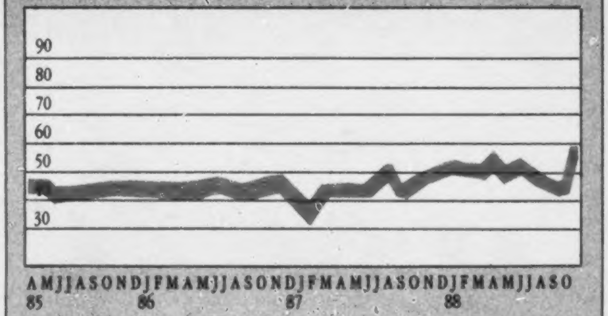
	Latest level (Oct)	% change from: Month ago	Year ago
Bearings	118.2	0.4	9.3
Bolts, nuts, etc.	107.8	0.8	4.4
Chemicals, inorganic	102.8	0.1	8.4
Chemicals, organic	114.7	2.1	18.5
Concrete products	109.9	0.0	0.5
Corrugated cartons	111.4	−0.2	6.8
Cutting tools, small	107.8	0.7	1.5
Electric lamps (bulbs)	123.5	0.5	0.3
Electronic components	118.0	−0.1	2.3
Fans and blowers	114.0	0.6	4.5
Foundry and forge products	111.1	0.5	4.6
Fuel oil (residual)	38.8	−4.0	−25.1
Furniture, commercial	125.7	−0.1	5.0
Gasoline	56.1	−2.4	−6.7
Glass, flat	110.4	−0.3	1.9
Glass containers	112.0	−0.1	−0.6
Gypsum products	113.7	2.7	−5.1
Hand tools	121.8	0.7	4.3
Hand tools, power driven	112.1	0.1	2.7
Industrial furnaces	121.8	−0.2	6.0
Integrating and measuring instruments	115.0	0.7	0.6
Internal combustion engines	112.3	0.1	2.7
Lubricating oil	107.7	2.2	8.2
Lumber millwork	123.5	0.7	3.5
Material handling equipment	108.7	0.1	4.1
Metal containers	111.5	−0.3	1.7
Metal mill shapes (nonferrous)	135.7	1.9	21.9
Metal tanks	106.2	−0.4	8.4
Motors and generators	124.3	1.3	6.5
Motor trucks	130.3	8.4	4.2
Office and store equipment	107.8	0.2	2.1
Paperboard	136.5	0.1	11.8
Paper boxes and shipping containers	125.9	0.2	6.6
Paper office supplies	117.1	0.5	7.9
Paint	113.8	0.4	4.6
Plastic resins	139.8	0.6	19.7
Precision measuring tools	121.4	0.0	4.3
Pumps and compressors	110.4	0.4	4.7
Refractories	114.6	0.3	3.3
Rubber belts and belting	108.2	0.0	5.2
Scales and balances	106.3	−0.4	2.1
Steel products	112.4	0.4	6.5
Switchgear	114.3	0.9	3.5
Textiles, synthetic fibers	98.7	0.0	6.4
Textiles, gray fabrics	114.4	−0.3	3.7
Tires and tubes	95.0	0.1	4.3
Transformers and power regulators	108.6	0.0	1.7
Welding equipment	119.0	0.0	6.7
Wire and cable	132.3	3.2	19.1

NAPM procurement trends

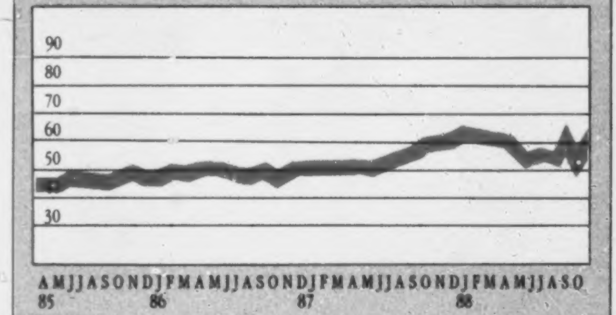
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

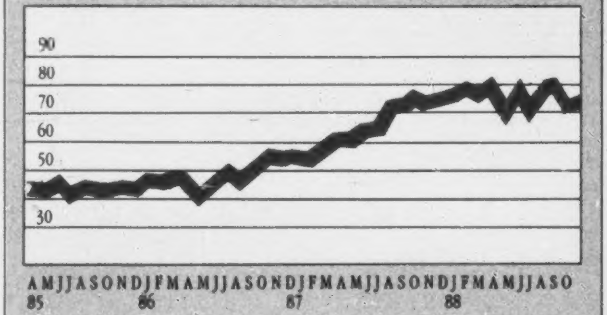
Inventories



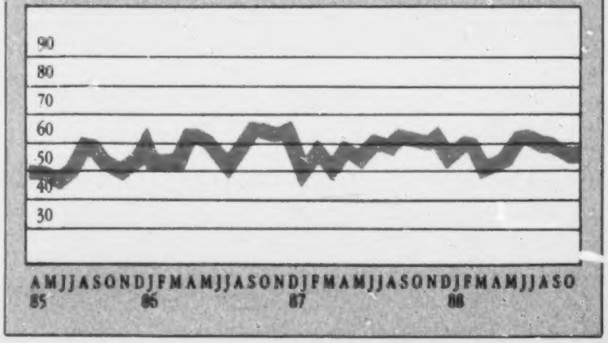
Speed of delivery



Prices



New orders



Purchasers [illegible]

by Ron Stevens, Managing Editor

1988
SALARY SURVEY

We at *Purchasing World* magazine consider this survey on salaries to be our benchmark for the years to come. Last year's was an attempt to get a clean batch of data—and was mostly successful. This year, however, we're satisfied that we have not only solid results but a better distribution of respondents in several categories.

Last year we didn't get an optimum geographical distribution; this year that's been cleared up. Last year you told us we were asking too many questions, including job description information along with our salary survey; this year we simplified our requests, and got better information.

Our computer tabulating firm tells us that the data is clean and reliable (statistically valid) and, given all the other improvements, we're very happy with the results. We think purchasing professionals will be, too.

A brief word on our methodology: We sample only the top of our circulation list, which includes the decision makers and top people in purchasing departments across the land. Our intention is to avoid the random nature of surveys which can be filled out by people who don't actually know important details such as what other members of their department are making and what their responsibilities, educational level, time on the job and even perks are—let's face it, we want complete and accurate answers, as much as possible.

We take an *nth* name basis sample of that top list, making sure we have good geographic distribution, and mail out the questionnaires. And the results are in.

The envelope, please...

The good news is that salaries are up almost across the board from last year. And, continuing to hit the high points, purchasing departments are not shrinking as fast as

continue their climb

they were. On the downside, the number of women and minorities involved in purchasing remains low, and their salaries are markedly lower, too.

The largest category responding to our survey was, as it should be, purchasing directors—we've always referred to them as directors of purchasing—(at 26.9%), followed by vice presidents (19.4%), and then purchasing managers (almost 17%). Another large category of respondents were materials managers, at 11.9%.

Respondents indicated that they reported primarily to vice presidents (34.5%) or ceo/presidents (31.1%).

How many purchasing people?

We also asked the size of purchasing departments, and found that among our respondents the overwhelming majority (76.4%) work in departments of 10 or fewer people. Another 11.5% are in departments of 11-20.

An interesting jump occurs to the next largest category, where 5.7% reported they work in departments of 100 or more purchasing professionals.

Related to this question was one on the size of the companies our respondents work for: Not unexpectedly, the largest category included the smallest companies. As it turns out, 25.6% of purchasing professionals work for companies with fewer than 100 employees. Companies with 100-249 employees accounted for 16.3% of our survey responses, and 16.9% of the respondents are employed by companies with 250-499 employees.

But our *second* largest category of respondents was from the *large* industry category—19.4% are in companies of 1,000-4,999 employees, and an additional 10% work for companies with more than 5,000 employees.

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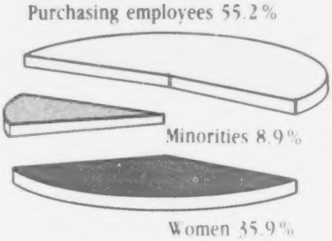
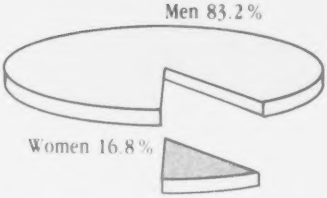
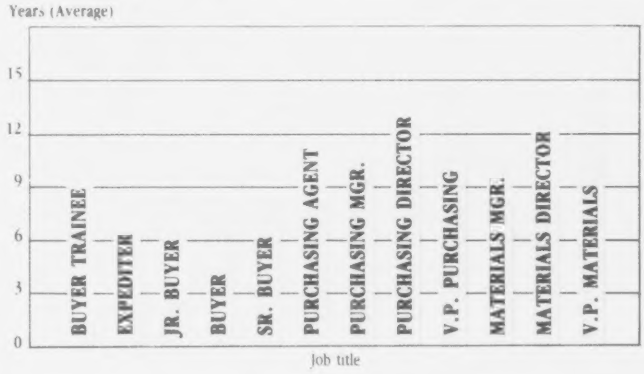
Women and minorities in purchasing



Gender of survey respondents



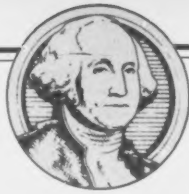
Time on the job



High/Low salaries by gender

Salary in thousands (High/Low)

GENDER	BUYER TRAINEE	EXPEDITER	JR. BUYER	BUYER	SR. BUYER	PURCH. AGENT	PURCH. MGR.	PURCH. DIRECTOR	V.P. PURCH.	MATERIALS MGR.	MATERIALS DIRECTOR	V.P. MATERIALS
LOW SALARIES												
Male	15.9	17.0	19.1	21.2	25.5	27.0	36.6	42.9	44.7	38.5	47.1	52.3
Female	18.0	15.3	17.8	23.3	30.3	29.3	44.5	37.0	37.5	22.0	59.0	
HIGH SALARIES												
Male	20.8	23.1	25.0	28.8	36.9	41.2	50.2	59.2	65.5	50.8	65.6	80.2
Female	13.0	12.8	19.2	26.1	46.7	34.4	54.0	48.5	51.5	58.0	52.5	



Income estimates for the surveyed companies showed that most, according to respondents, fall in the $5-25 million annual gross sales category (24.8%). The next most populous category was from $25-100 million (18.6%), followed by the 17.2% in the $1-5 million annual gross sales category. An additional 11.0% were in the $100-250 million range, and 9.0% fell in the $1 billion + category.

What does that translate into in terms of annual purchase volume? For 47.1% it means less than $10 million. For 25.8% it translates into $10-50 million, and for 14.8%, $50-100 million. Eleven percent purchase from $150-500 million annually, and only 1.3% spend more than $500 million in annual purchases.

In only two categories (materials manager and vice president of materials) did the low ranges of mean (in the statistical sense) salaries drop from those reported last year.

At the high end, three out of 12 categories reported lower mean salaries—so the overall picture is one of higher mean salaries at both ends of the range.

Buyer trainee—
low, $16,100; high, $20,300
Expediter—
low, $16,800; high, $21,300
Junior buyer—
low, $18,900; high, $23,900
Buyer—
low, $21,500; high, $28,500
Senior buyer—
low, $26,000; high, $37,600
Purchasing agent—
low, $27,200; high, $40,500
Purchasing manager—
low, $37,300; high, $50,500
Purchasing director—
low, $42,300; high, $57,900
Vice president, purchasing—
low, $44,000; high, $64,100
Materials manager—
low, $36,500; high, $51,500
Materials director—
low, $48,200; high, $63,600
Vice president materials—
low, $52,300; high, $80,200.

Give that to me in percentages

Respondents reported to us that their salaries were up from last year in every category, though of course the amounts varied. Buyer trainees, according to their managers, are up the most, with a 6.7% increase.

Expediters are making 4.3% more, junior buyers 5.3%; buyers 5.8%, and senior buyers are up 4.8%, as are purchasing agents. Purchasing managers have increased their pay by 6.0%, purchasing directors by 5.1%, vice presidents of purchasing are up by 5.5%.

Materials directors are getting 4.6% more, materials directors have gone up by 4.3% (the smallest reported increase) and vice presidents of materials are making 4.7% more than the year before.

As to frequency of salary increases, 89.5% of our respondents have annual raises, with an additional 3.9% getting their increases semi-annually.

The more you make, the more you get

What about incentives beyond salaries? Well, at the upper level job categories, such perks are pretty common.

Vice presidents of materials, for instance, report that 75% of them get incentives, as do 64.3% of materials directors, 52.2% of purchasing vice presidents and 56.7% of purchasing directors. As the job titles dip lower, so do the percentages of those reporting incentives: materials managers, 42.9%; purchasing managers, 45.1%; purchasing agents, 28.6%; senior buyers, 24.4% and buyers, 28.6%.

What form do the incentives take? Bonuses were the major reward, at 34.0%, with stock options accounting for 8.3% and incentive awards at 6.4%. (A minuscule 3.8% reported they get company cars.)

Further, the situation on incentives will remain the same for 78.9% of our respondents, increase for 16.5%, and decrease for only 4.5%.

How much education?

We asked our respondents to tell us how much education was expected of various job titles. Here are the results.

Buyer trainees are expected by 53.3% to have a high school education; 26.7% expect the trainee to have an associate degree and 20.0% expect a college degree.

Expediters are expected to have a high school degree by 81.0%, an associate degree by 14.3% and a college degree by 4.8%.

Junior buyers should have a high school education according to 46.2%, an associate degree according to 26.9% and the same percentage expects a college degree.

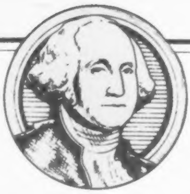
Buyers should have a high school education according to 44.6%; another 16.9% looks for an associate degree and 36.9% look for a college degree. A slim 1.5% look for an MBA.

Senior buyers are expected to be high school educated by 22.9%; the same percentage expects an associate degree, and 54.3% looks for a college degree.

Purchasing agents should be high school graduates, according to 40.4%; 14.9% expect an associate degree and 42.6% expect a college degree, while another 2.1% want an MBA for the job.

Purchasing managers need high school degrees according to 11.6% of respondents; 9.3% expect an associate degree, with 67.4% requiring a college degree, 7.0% an MBA and 4.7% a masters degree.

Purchasing directors should have a high school degree, felt 15.4%, while 11.5% expect an associate degree, 53.8% require a college degree, 13.5% require an MBA and 5.8% require a masters.



Continued from page 34

Vice presidents of purchasing should have a high school education, according to 10%, an associate degree according to 15.0%, a college degree for 70.0% and an MBA for 5.0%.

Materials managers are expected to have high school educations by 18.8%, an associate degree by the same number, a college degree by 56.3% and an MBA by 6.3%.

Materials directors should have a high school degree according to 8.3%,—a college degree by 83.3% and an MBA by 8.3%.

Vice presidents of materials should have high school behind them, according to 14.3%, a college degree according to 57.1%, an MBA according to 14.3% and a masters according to the same number.

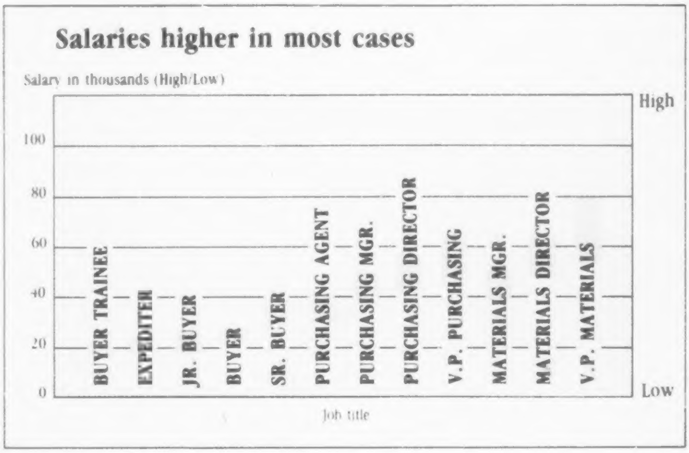
According to gender

What's the percentage of women in purchasing? Overall our survey said 35.9%, with an even tinier 8.9% being minorities. Those filling out the survey responses, however, broke down a little differently: 83.2% of respondents were male, 16.8% were female. The message is clear—decisionmakers in the purchasing business are still predominantly men, not exactly representative of the number of women in purchasing.

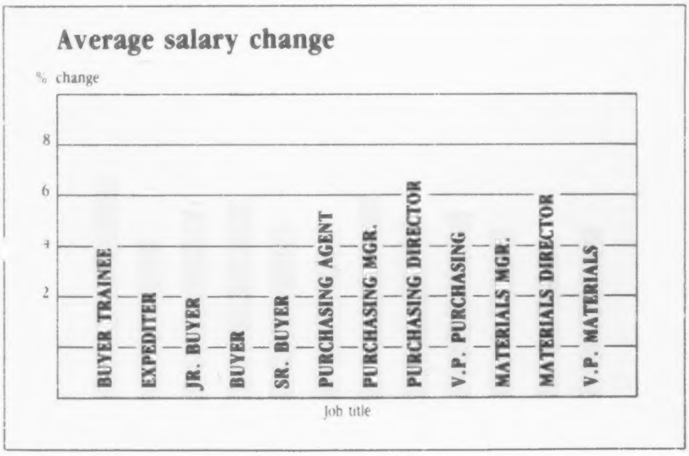
The survey revealed an extremely uniform distribution by age. From 23 (youngest respondent) to 69, we ran approximately 2%—minimum—in every age. (There was also one 79-year-old respondent.) The largest concentrations were at age 35 (6.3%) and 45 (6.9%).

PW will make copies of the full 1988 salary survey available to readers who want more detailed information. Cost for the complete survey answers is $15. Mail checks to ***PurchasingWorld*** *Library, 6521 Davis Industrial Parkway, Solon, OH 44139.*

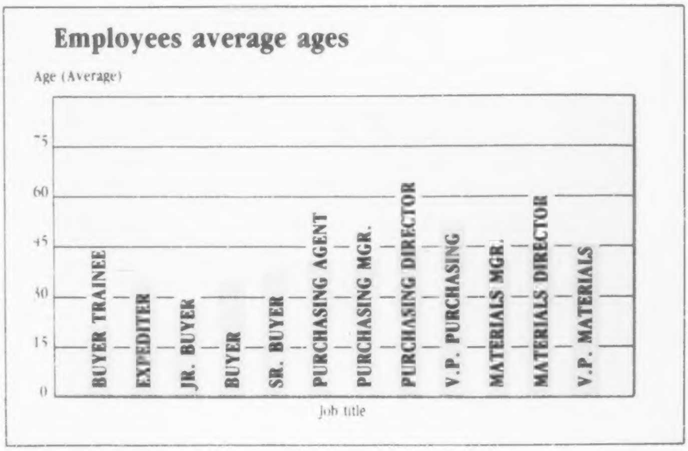
PW



Salaries higher in most cases



Average salary change



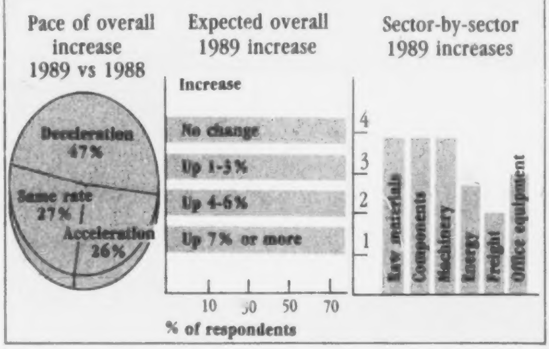
Employees average ages

New survey says prices lower

The nation's industrial purchasing executives are cautiously optimistic on prices.

A new *PurchasingWorld* magazine survey suggests that the typical 1989 buying mix could be fractionally under that recorded for the year now ending. One key reason: The next 12 months will see fewer of the sharp raw material runups that characterized the past few quarters.

Prices: PMs take a first look at 1989



As one midwestern PM puts it, "The trend is still up, but we don't expect quite the same number of double-digit increases—particularly in metals, chemicals, plastics and paper—that characterized the current year."

And there are plenty of others who would agree. Thus 47% of responding buyers expect overall price increases to decelerate next year—with the remaining number split between those who see no change and those who anticipate some acceleration.

Other key findings of the just-completed survey:

- The average 1989 price increase will be just shy of 4%. Nothing great—but still a bit under the close-to-5% estimate for the current year. Equally significant, only a handful of respondents anticipate overall increases in the 7%-plus range—well under the 33% who were hit with these kinds of boosts during the current year.
- The study also confirms the feeling noted above that raw materials won't be quite the problem they were last year. Over the next 12 months, for example, the average raw material hike is put at about 3.8%.
- Good news on the office equipment front—where only a 3% increase is projected. An even smaller 2% gain is seen for freight. The latter is somewhat under the estimate made by Wharton Econometrics Forecasting Associates—but that is probably because the Wharton figures don't always pick up all the price shading.
- Energy, too, is expected to be less buoyant—with the small 2.6% advance understandable considering the recent tumble in crude oil quotes.
- Somewhat less rosy is the prediction that component parts (reflecting good demand and this year's raw material cost runup) could accelerate a bit next year. The purchasing manager forecast here: 3.8% in 1989 *versus* 3.3% for 1988.

As for specific commodities where increases have been most bothersome—they cover the gamut of industrial purchases. Included are such key areas as packaging, carbon steel, stainless steel, plastic resins, chemicals, various component parts (including bearings and electric motors), machinery and electronic components.

The major reasons given for these increases are higher manufacturing costs, capacity restraints, and a continuing weak U.S. dollar. Those noting the last factor add that it is enabling domestic suppliers to boost tags.

At the other end of the spectrum, there are a few items mentioned which could be leveling as 1989 wears on. These include refined petroleum products, copper, aluminum, zinc, selected office equipment products and some electronic memory devices.

Whatever the individual product pressures, buyers continue to emphasize strategies that will keep advances down to a minimum. As in the past, long-term contracts and blanket ordering head the list. But other approaches are noted, too—including more value analysis, working closer with vendors, the narrowing down of supplier bases to develop more buying clout, and the insistence on better quality.

As one purchasing executive sums it up: "It may not be a buyers' market. But it's not an all-out sellers' one either. There's still plenty of opportunity to shave something off original asking prices—at least in areas where relatively large volume buys are involved." **PW**

Quality appears in numerous forms

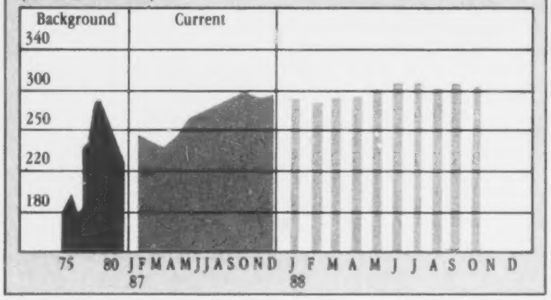
Quality means many things to many people. To some it is zero defects, to others it's waste elimination. To Jerry W. Claunch, C.P.M., senior vice president, Professionals for Technology Associates, Inc., Plantsville, CT, quality to a great degree is 'supplier certification.' He sees supplier certification as, "a tool you can use to eliminate the causes of wasted time, money and labor and to destroy the 'ubiquitous Re—rework, repair, reject, refuse, etc.'"

Like many other quality programs the theme of supplier certification is 'make it right the first time.' Claunch explained to the NAPM Conference attendees, "This means an emphasis on defect prevention so that routine inspection is no longer needed. Consequently the burden of proof will not rest upon inspectors . . . quality can not be inspected into a part.

Raw material price barometer

(Index 1967 = 100)

Last month 304.2
Month before 306.4
Year ago 294.6



LATEST SPOT MARKET PRICES

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	16.50	16.50	16.50
Steel, bars, Pitts., cwt.	16.50	16.50	16.50
Steel, bars, C.R., Pitts., cwt.	19.45	19.45	19.45
Steel, plates, Pitts., cwt.	23.25	22.75	19.75
Steel, plates, H.R., Pitts., cwt.	23.25	22.75	19.75
Steel, sheets, C.R., Detroit, cwt.	28.15	28.15	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	1.075	1.010	.810
Antimony, N.Y., dealer, lb.	0.95	1.05	1.09
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.08	1.88	1.64
Brass, yellow, [sheet], lb.	2.04	1.84	1.59
Cadmium, N.Y., dealer, lb.	6.00	6.20	3.05
Copper, electrolytic, wire bars, refd., lb.	1.45	1.25	1.00
Copper sheet, over 24 in., lb.	2.17	1.97	1.73
Lead, common. N.Y., lb.	.40	.40	.42
Magnesium, pig ingot, [99.8%], lb.	1.58	1.58	1.53
Mercury, 20 fl. lots, N.Y., fl.	285.00	310.00	355.00
Molybdenum, oxide, dealer, lb.	3.45	3.49	2.79
Nickel, cathode, dealer, lb.	5.35	4.98	2.71
Platinum, dealer, oz.	574.00	520.00	495.00
Silver, N.Y., oz.	6.49	6.40	6.63
Tin, N.Y., dealer, lb.	3.41	3.36	3.23
Zinc, Prime West, East St. Louis, lb.	.725	.690	.420
Zinc, die casting alloy, No. 3, lb.	.805	.775	.475
PAPER			
Uncoated book #3 offset, ton	955.00	955.00	890.00
Watermarked bond, ton	1080.00	1080.00	985.00
Gummed sealing tape, carton	17.87	17.97	17.17
Grocery sacks, ton	460.00	460.00	410.00
Solid bleached paperboard, ton	685.00	685.00	650.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	380.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.277	.276	.271
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	0.89	1.20	1.24
Cotton middling, 1", N.Y., lb.	.523	.505	.609
Printcloth, 48", 80x80, N.Y., spot. yd.	.480	.480	.620
Army duck, 37", 13 oz., yd.	1.50	1.51	1.51
Blended printcloth, 64", 78x54, yd.	.66	.66	.93
20s combed yarns	1.80	1.96	1.98
Wool 64s, Staple, lb.	4.75	4.50	3.00

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	.360	.360	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	91.00	91.00	75.00
Benzene, petroleum, tanks, Houston, gal.	1.26	1.18	.90
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	.58	.58	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb	.735	.735	.780
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.58	.58	.36
Naphthalene, crude, tanks, lb.	.16	.22	.22
Phthalic anhydride, tanks, lb.	.35	.35	.32
Polyethylene resin, low density liner film grade (market place), lb.	.515	.515	.385
Polypropylene, homopolymer grade (market price), lb.	.510	.510	.470
Polystyrene, general purpose grade (market price), lb.	.600	.600	.520
Polyvinyl chloride, pipe grade (market price), lb.	.440	.440	.375
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.450	.470	.400
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	138.00	132.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.95	.95	.80
Xylene tanks, gal.	1.13	1.00	.78
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	334.94	329.80	332.60
Lumber 2x2 pine, mbf, cl	319.18	314.70	330.65
Plywood, plyform, ¾", msf, cl	567.75	569.20	575.20
Plywood, ⅝", msf, cl	382.32	387.70	391.45
Cement, bulk, ton, tl	64.27	64.42	63.73
Sand, ton, cl	7.22	7.16	7.12
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.31	48.41	48.88
Crushed stone, 1½", ton, cl	6.75	6.99	8.31
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl	92.28	91.99	90.00
Gypsum sheathing, ½"x1"x8", msf, tl	228.43	228.43	226.69
Brick, common, per thousand, tl	229.22	229.22	198.26
Asphalt paving, AC-20	114.39	115.64	140.34
Concrete sewer pipe, 12", prem. joint, per foot, cl	17.73	N.A.	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	13.95	14.10	18.95
Diesel (reseller rack, Chi), gal.	.463	.388	N.A.
Fuel oil No. 2 (N.Y.), gal.	.441	.401	.565
Fuel oil No. 2 (Gulf spot), gal.	.426	.374	N.A.
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	17.00	15.00	N.A.
Gasoline (reg lded NY), gal.	.580	.498	.538
Gasoline (reg unlded NY), gal.	.560	.478	.525
Kerosene (reseller rack, Chi), gal.	.511	.435	N.A.
Propane (Mt. Belvieu, Tex), gal.	.195	.198	.258
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	114.00	117.00	114.00
Steel, No. 1 hvy., dlvd., Chi., ton	108.00	115.00	115.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.170	1.060	.890
Copper, No. 2, East, wholesale buy, dlvd., lb.	1.015	.925	.800
Brass, red, East, wholesale buy, dlvd., lb.	1.130	1.020	.850
Brass, yellow, East, wholesale buy, dlvd., lb.	.510	.470	.365
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.610	.610	.500
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.710	.700	.565
Zinc, old, East, wholesale buy, dlvd., lb.	.240	.240	.200
Lead, clean solids, East, wholesale buy, dlvd., lb.	.260	.245	.275
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	15.00	20.00	35.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	5.00	20.00
Old newspapers, Chi., ton	Nom.	5.00	N.A.
Old white ledger, Chi., ton	80.00	85.00	N.A.

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

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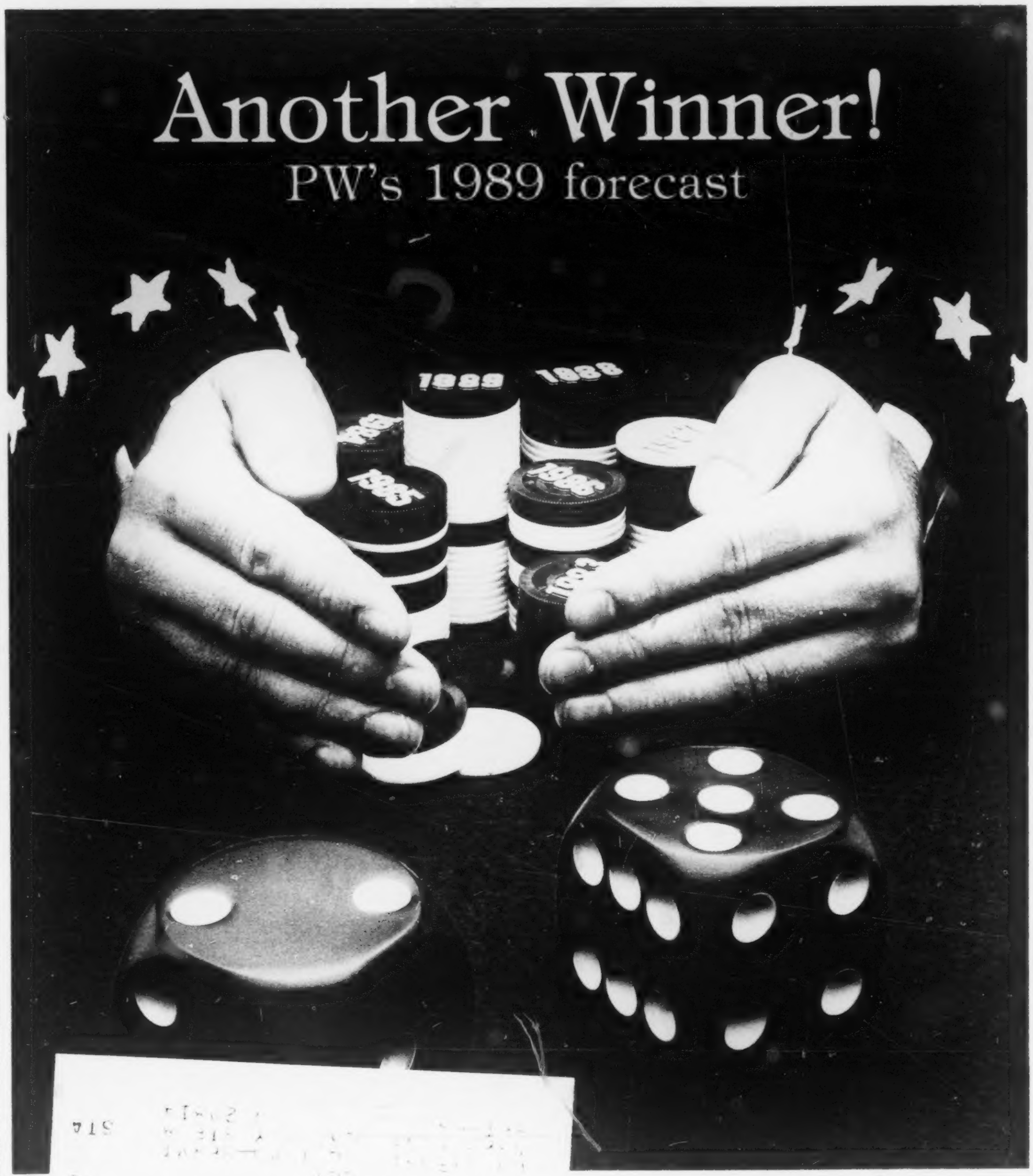
PurchasingWorld®

THE BUYER'S MAGAZINE

JANUARY 1989

Another Winner!

PW's 1989 forecast



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PW economist takes higher road

Three '89 econometric models • Top purchasing execs look at '89

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by Robert S. Reichard, editor-in-chief

All sources 'go' for '89

The prognosis for the next year or so doesn't look to be all that bad.

That's the nearly unanimous opinion of purchasing managers, vendors, economists, government analysts, and several econometric models—all sources that have been tapped for this special "Outlook '89" issue of ***PurchasingWorld***. To be sure, there are some differences of opinion. But for the most part they are not all that earthshaking.

Indeed, if you average out these multiple projections, the general upward price drift over the next 12 months is not likely to be that much different from that of the past 12 months. On the other hand, trends in individual product lines could vary significantly from those noted in 1988.

Metals, for example, should be taking a breather. And chemicals, plastics, and paper will be going up at a considerably slower pace than in 1988. On the other hand, more highly fabricated goods—reflecting the big raw material runups of last year—should move up at a faster pace.

Why all the optimism about avoiding a major price runup? Several factors are suggested. For one, labor costs (especially in manufacturing where good productivity gains continue to be reported) won't be too much of a problem. Demand-pull influences should be less strong, too—as industrial production gains slow down.

Also supplies should begin to ease up a bit as the capital spending increases of the past year gradually translate into industrial potential. And last but not least, energy quotes—a sector which traditionally has had a strong psychological as well as real influence on prices—will remain pretty much under control.

Keeping all the above in mind, here's a capsule summary of what the various sources noted above are predicting in the way of price increases for the new year:

- **Buyers:** Purchasing executives who are on the firing line remain quite optimistic. Members of the NAPM Business Survey Committee, for example, are projecting only a 3.7% in the prices of the goods they purchase over the next 12 months—actually 1.3 percentage points under the 5% boost they say they experienced in 1988. And a nationwide ***PW*** readership survey backs this up—with the average advance anticipated for 1989 put at just over 4%.
- **Vendors:** No real problems are seen here either. A new McGraw-Hill/DRI survey suggests that the average asking prices for manufactured goods will advance by only 3.1% during 1989. Particularly

Continued on next page...

Big year for bargaining

It's going to be another big year on the labor negotiation front—with major collective bargaining agreements covering 3.1 million workers slated to expire or reopen in 1989.

To put this in proper perspective, that's 36% of the 8.6 million workers under these large pacts. The figures, based on a new Bureau of Labor Statistics tabulation, suggest that most of the action in manufacturing will be centered in transportation equipment and the primary metals industries—with each of these sectors calling for negotiations involving more than 100,000 employees.

In the metal sphere, June is the deadline month for aluminum, with the steel cutoff point scheduled for two months later (August).

Nonmanufacturing negotiation won't be negligible either—where bargaining is expected to be most crucial in the communications and services areas. And there's a healthy number of state and local workers that will be bargaining this year, too.

Most labor analysts, however, don't seem overly concerned about long work stoppages. Their thinking: Union emphasis will continue to be on job security, with dollars-and-cents earnings being a secondary factor.

The Bureau of Labor Statistics, in releasing the new study, also promises a more detailed rundown later this month in its January 1989 Monthly Labor Review.

The 1989 labor calendar

(Major collective bargaining pacts)

	Number of agreements	Workers covered (in 1,000s)
January		
Tobacco, Airlines	19	51
February		
Food stores	23	103
March		
State and local government	58	178
April		
Construction	74	176
May		
Communications, Construction	82	379
June		
State and local government, construction, health services, aluminum	278	998
July		
Construction	34	66
August		
Communications, local government, steel	73	535
September		
Food stores, state and local government, maritime	66	236
October		
Aerospace, food stores	34	162
November		
Local government, health services	19	57
December		
Real estate management, building maintenance	36	130
Total	794	3,068

Source: Bureau of Labor Statistics

encouraging is the actual 10% decline envisioned for nonferrous metals.

- **Econometric models:** A tabulation of three big mathematically-oriented models shows the average finished goods producer price rising by 4.5% in 1989. But if you zero in on just industrial commodities, the increase is somewhat less. Wharton, for example, sees the advance in this more purchasing-oriented yardstick at only 3.6%. Also worth noting: Roughly half of the 33 specific product lines detailed in a sampling of the DRI model are expected to show smaller price increases in 1989 than in 1988.
- **Economists:** This is the only area where a fair-sized difference of opinion is noted. Wharton Econometrics' Dr. Nariman Behravesh sees the industrial price level rising 3.6% this year. That's well above the small 1.3% advance envisioned by ***PW*'s** own economic consultant Dr. Roger Williams. While Williams admits he's sticking his neck out, he feels that the combination of moderating factors noted above (no big wage push, moderating demand gains, and a slowly increasing supply) are being underestimated by many of his fellow analysts.

Put all the above into the hopper—and all signs seem to point to a 4% or slightly lower increase in industrial producer prices over the new year—a pretty upbeat forecast considering the fact that the economy will be entering its seventh consecutive year of growth.

Office furniture

(Mkt share)

Source: The Freedonia Group

New office style aids prices

Big dollars will continue to be shelled out here over the next few years—with totals reaching the $10 billion mark by 1992. So predict Freedonia Group analysts who put the annual growth rate at 8.7% over this period. Leading the advance, according to the Cleveland-based firm, will be desk and desk extensions, ergonomic seating (reflecting increased awareness of problems associated with sitting for hours in front of VDT) and open systems such as cluster and one-piece modular stations. These latter systems (already accounting for two out of every five dollars spent) will increasingly function not only as traditional desks and filing cabinets but also provide wire management for electrical outlets and lighting.

Continued on page 12

Energy stays inflation-free

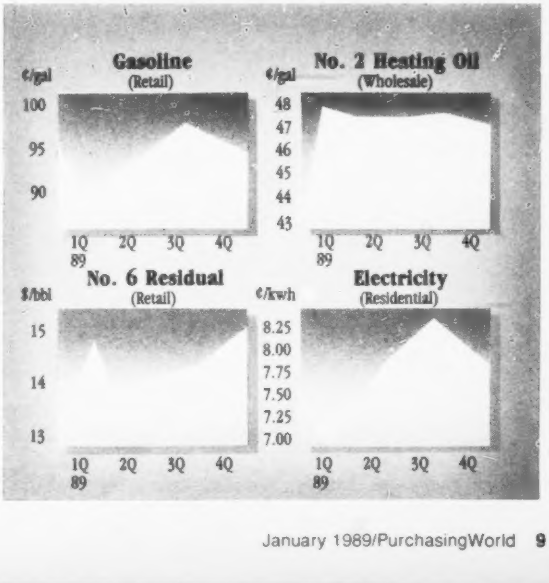
Budget for another year of virtually inflation-free energy. Reason: The basic determinant (the imported crude oil price) is expected to hold steady at a relatively low $15/barrel.

That's the assumption being used by Department of Energy analysts in their latest quarterly forecast of energy price trends. Coupled with the expectation of a relatively modest energy demand increase (up only 1.6% in 1989 *versus* 3.4% over 1987-88), here's what they see ahead on a product-by-product basis:

- **Gasoline:** The overall 1989 price average (all pump grades) won't change all that much—94¢/gallon over the new year *versus* 96¢/gallon in 1987-88. But there could be a 10¢/gallon swing between the slow-demand 1Q (89¢/gallon) and the big summer driving season.
- **Distillates:** Barring another very cold winter, 1Q price increases are expected to be a moderate 48¢/gallon wholesale in the case of No.2 fuel and $14.92/barrel in the case of No. 6 resid.
- **Natural gas:** Wellhead cost increases will push prices to utilities up about 5% in 1989 to an average of $2.29/million BTU. Despite this, the fuel will remain competitive with resid.
- **Electricity:** Only a 1.6% overall rise is seen for residential rates this year. But summer costs will show their normally big seasonal rise (this time to above 8¢/kwh compared to only 7.2¢/kwh

Despite all the price restraint, conservation progress persists. The energy/real GNP ratio is targeted to fall another 1% or so in 1989 as more efficient machinery continues to come onstream.

1989 Energy tags
The seasons call the turns



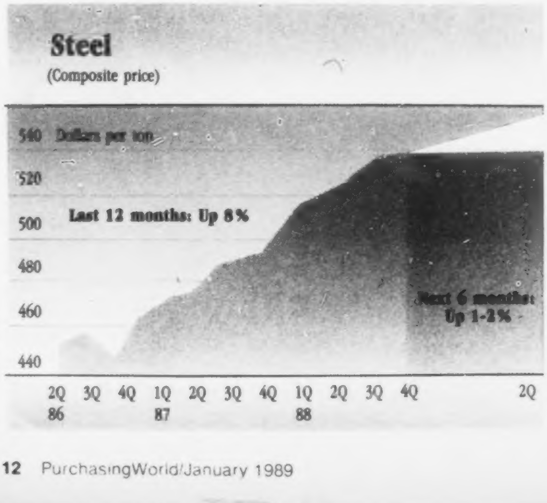
Better steel market balance

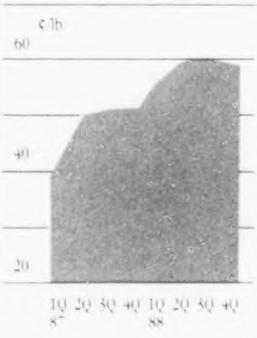
CURRENT SITUATION: The price advances of a few quarters back seem to be running out of steam. A few boosts are scheduled to go into effect this month, but they're relatively small—and market averages this quarter are likely to run only about 1.5% above late 1988 levels. That's in sharp contrast to earlier increases which were running at 2% or more per quarter. **One factor behind the slowdown: An easing demand trend.**

DEMAND: The current buying lull is expected to continue. Some additional slippage is anticipated after midyear—**holding the 1989 shipment total to near 78 million tons—about five million under the figure estimated for the year just ended.** Consumption should show a similar pattern—with totals for the year dropping under 95 million tons—well under the better than 102 million tons that were chewed up in 1988. **An inventory shift will also play a role.** Some two million tons will be chopped off this year.

SUPPLY: The projected drop in demand points to much better market balance. This can probably best be appreciated by looking at mill operating rates which last year averaged near 88%. This year only an 83-85% rate is seen for the first half—with an under 80% reading likely after midyear. All this, in turn, suggests a continuation of the narrowing leadtime trend already underway. **Imports, too will remain a plus factor on the supply side.**

PRICE OUTLOOK: The moderating trend will continue. But some upward drift is inevitable—if only because of the increases that mills recently contracted over the next 6-12 months with large volume users. On the other hand, the overall rise should be small—with restraints forced by 1) better market balance, 2) fewer raw material cost hikes, 3) continuing productivity gains (it now takes less than six manhours to make a ton of steel *versus* 10.1 hours back in 1982 and 4) fair-sized mill profits.


Steel
(Composite price)


Polystyrene
(general purpose/crystal grade)

Softer polystyrene trends

A softening trend may be in the making—as big-volume buyers pay only 58¢/lb. for the general purpose/crystal grade—off 2¢/lb. from previous levels. Impact grades have also eased. Where do we go from here? The market pressure would seem to point to more decline as capacity rises 11% this year. But costs are another factor. Should they ease, polystyrene could drop below 55¢/lb.

Magnesium up again

Prices have just moved up 5¢/lb.—bringing the primary metal and die cast alloy up to $1.63/lb. and $1.43/lb., respectively. This comes on top of a recent (June 1988) increase—and reflects both firm demand and the tightest Free World producer inventory level in more than four years (only a 5.8 week supply at current shipping rates). On a rosier note: Two new production startups are anticipated this year—including Norak Hydro's 60,000 metric-ton-per-year Becanceour, Quebec smelter.

Zinc is bullish

Bullishness is still the order of the day—with tags at latest report running up into the mid-70s range, far above the 42¢/lb. lows of late 1987. And alloys have moved up commensurately. Blame it all on seven straight years of supply deficit. In any case, demand from the galvanizing sector remains strong and supplies continue to experience disruptions. Market balance could be achieved later this year—as Free World production increases to near 5.2 million tons. And this, in turn, should put some modest downward pressure on prices—with quotes slipping back into the 60-70¢/lb. range later this year.

Lead should drop in 1989

Cold weather is keeping battery demand high—enough to push the heavy metal up into the low 40s range. But things could change as 1989 wears on—as the Free World supply of refined lead moves up 3.5%—about 1-2 percentage points above anticipated demand gains. And while the metal isn't likely to fall out of bed, it's hard to see this year's quotes averaging much above 35¢/lb.

Long-distance rates to drop

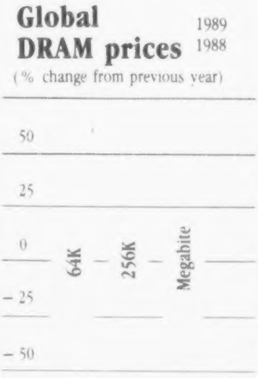
Basic long-distance phone rates are going down 4%, reflecting lower access charges that AT&T and other firms pay the local telephone companies. Also likely to cut communications costs: AT&T's proposal to reduce data transmission prices by 27% and offer promotions on installation and service. Also reassuring on the communications front: A new McGraw-Hill/DRI survey finds communications firms planning on getting an average of only 1.7% more than last year for their services—well under boosts suggested for most other industries.

Refractories

Brace for substantial increases—5-6% on magnesite brick, 8% on magnesia carbon brick, and 5-10% on high alumina brick. Behind the boost: Rising raw material costs. Aluminum metal, for example, is up more than 50% over the past year—with other hikes noted for graphite (up more than 40%) and high-purity alumina (up 20%).

DRAMs ease price pinch

The pinch may be easing. One sign: An increasing supply of 1 megabit DRAMS has forced grey market tags down by as much as 35% over the past month or two. Prices as low as $24 are quoted, compared to as high as $37 this past fall. And that's only the beginning. A new In-Stat projection sees average tags dropping sharply across the board this year. Here's what the Scottsdale, AZ-based consulting firm sees in the way of percent decline this year *vis a vis*1988: 64Ks (down 29%), 256K, (down 33%), and 1 megabit (down 45%).



Copper prices stay up

Volatility remains the order of the day as the red metal begins to slip from its recent $1.60-plus/lb. peak. But don't expect any sharp descent to under $1/lb. levels. Reason: A continuing tight supply situation which will persist for at least another quarter or two. True, U.S. output has risen 20%. But this has been more than offset by declines in other producing countries. Fears of a U.S. strike in mid-1989 also should put a floor under tags. In any case, it's hard to see prices dropping much under $1.25/lb. over the next 3-6 months.

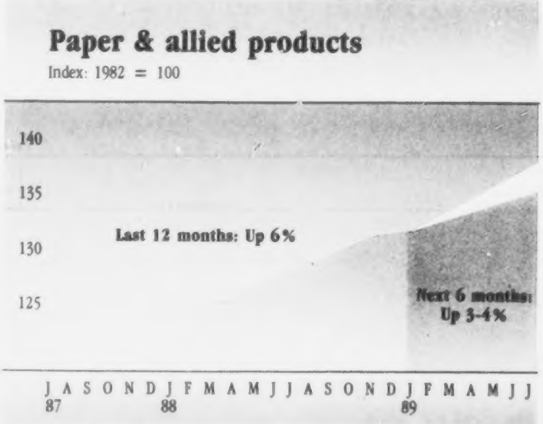
Paper demand decelerates

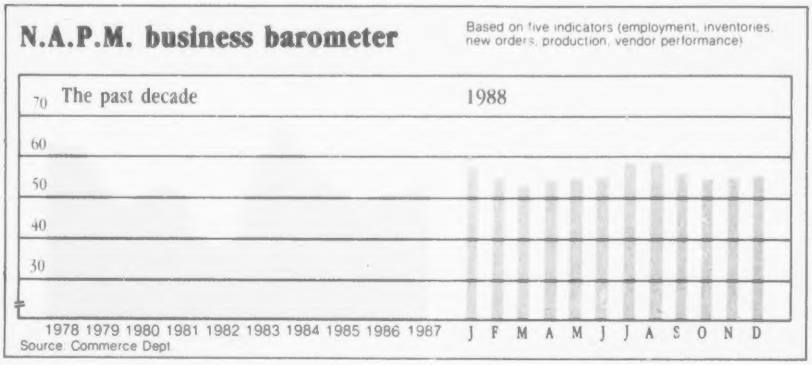
CURRENT SITUATION: It's been a rough year on the paper and paperboard price front. Over the past 12 months, for example, paperboard, corrugated boxes, and paper office supplies have risen 12%, 7% and 8% respectively. Commercial and industrial tissues have also advanced significantly. Much of this has been due to solid demand gains—with overall paper and paperboard production up by nearly 4%. **Tighter supplies also played a major role in the price hikes—as overall 1988 operating rates in some sectors approached full-capacity levels.**

DEMAND: A deceleration in the rate of gain is fairly likely—reflecting the somewhat slower overall GNP growth rate anticipated for 1989. **Paper and paper product production at this stage of the game looks to rise by only 2-3%.** But there are a few bullish factors still around. Thus exports, aided by the still-soft U.S. dollar could be strong again in 1989.

SUPPLY: The worst of the tightness may be over—if reports of a huge 62% increase in paper industry capital spending over the 1987-89 period prove to be anywhere near correct. This suggests some modest declines in operating rates for the new year—to 97% in containerboard, 95% for coated papers, and 95% for uncoated free sheet. **Also imports remain a positive supply factor—particularly in uncoated groundwood, uncoated free sheet, and coated papers**—as foreign producers try to establish and maintain a long-term presence in the U.S. market.

PRICE OUTLOOK: Further, though smaller-than-1988, increases are seen for 1989. Over the next few months, for example, another increase in pulp seems like a pretty good bet. There are also indications of another price boost in cut size (copier) paper. Also producers have announced a $30/ton February increase in newsprint—though the latter (given the current discounting) could be in trouble.



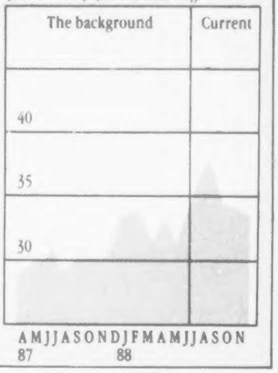


N.A.P.M. business barometer

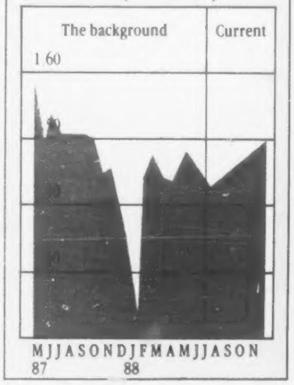
Based on five indicators (employment, inventories, new orders, production, vendor performance)

Source: Commerce Dept.

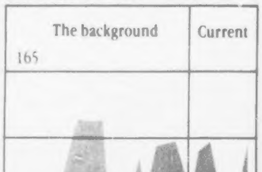
Leading indicators



1. Capital goods orders
(Nondefined) (Bill. $ seas adj)



2. Housing permits
(Mill. $ seas. adj. annual rate)



3. Help wanted ads
Index: 1967 = 100

KEY ECONOMIC TRENDS

Barometer reads 'good business weather'

The new year is getting off to a fairly good start—supporting projections for continuing, albeit modest—advances in both GNP and industrial production.

The latest NAPM barometer reading, for example, remains virtually unchanged from the previous month (see chart)—close to seven percentage points above the neutral 50 mark. This is consistent with a real growth rate in excess of 3%.

Another sign of continuing strength: The lack of any inventory excesses. Thus the all-business stock/sales ratio remains near 1.50 months—well under the 1.55 month average of both 1986 and 1987.

Zero in on purchased materials, (the PMs' main concern)—and the picture is equally impressive. Specifically, the current 0.50-0.51 reading again is relatively unchanged from year-earlier levels.

Clearly inventories are now being fine tuned—from basic raw materials all the way up to final demand. Part of this, of course, is due to better computer controls and systems. But another part can be traced to a "keep 'em lean" strategy forced by higher interest rates and top management pressures.

Capital goods orders also support the feeling that the economy is still firm. True, figures here are down from recent peaks. But not enough to prevent an impressive 10% advance *vis a vis* a year ago.

Also on an upbeat note: Machine tool orders continue to come in at a relatively health clip. While there have been a few pauses here in recent months, machine tool makers still see a strong year—and are hiring additional workers to back up such projections.

All this strength in capital goods is pretty much in line with new plant and equipment outlay estimates—all of which point to gains in real terms for 1989.

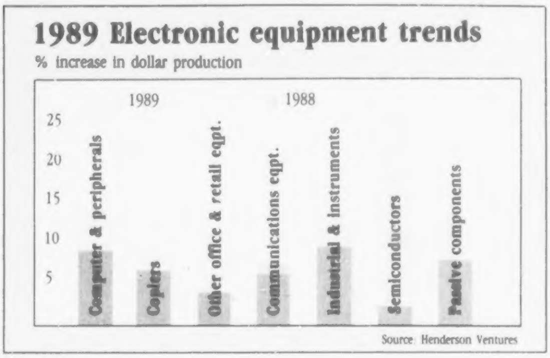
The housing market has also been holding up quite well—especially in light of recent increases in borrowing costs. Thus new permits, a lead indicator of future activity, are still being clocked in at around 1.5 million units at annual rate—the highest level in over a year (see chart).

While such numbers are hardly likely to be sustained, it does provide a good start for 1989. It now looks as if 1.45 million units will be initiated this year—only 1-2% under 1988 levels.

To be sure, spending for other big-ticket consumer durables isn't all that robust. Nevertheless, car production schedules remain a positive sign here—with first quarter 1989 plans running 14% ahead of comparable early 1988 readings.

All this activity in turn, is buying up labor markets. The help-wanted index—an especially sensitive barometer of labor demand—has rebounded to its earlier highs (see chart). If nothing else, it suggests management optimism about the near-term business future.

So does the continuing



1989 Electronic equipment trends

% increase in dollar production

Source: Henderson Ventures

increase in the number of jobs reported by the Commerce Dept. Over the past three months, for example, employers added about one million workers to non-farm payrolls. Not surprising, the level of unemployment is now hovering near a 14-year low.

To sum up: There's little indication of any imminent pause in the economy. Most business analysts now see industrial production running at a 3% annual rate through spring—with deceleration, if it does occur, not showing up until sometime after midyear.

Electronics—good year ahead

Another good year looms ahead for the still fast-growing electronics and electronics equipment industries.

A new projection by Henderson Ventures calls for some slowdown in the computer and office equipment category *vis a vis* this past year's big 13.1% advance. But the Los Altos, CA electronics consulting firm remains quite bullish—calling for a respectable 8.4% increase in sales of these products.

Biggest gains will continue to be in central processing units (CPUs) where a 12% advance is seen (*versus* 17% in 1988). Within the CPUs, small units (less than $15,000) will fare best with a solid 17% gain anticipated.

Storage devices, with an expected 9.3% advance (*versus* an 11.2% jump in 1988) should also fare quite well. But a somewhat smaller 6.8% increase is seen for terminals.

In the noncomputer office equipment area, a 6.1% hike is projected for copiers over the next 12 months. Indeed, the only real disappointment will be the "all other" office equipment category which is seen growing only 3.6% in 1989.

Other electronic equipment (excluding computers and office items) should also continue to advance—with the 7.2% figure for communications gear pretty much matching last year's. And while industrial and instrument products will decelerate, the near 10% overall advance here is still quite impressive.

Henderson also provides new estimates for component parts. And here the picture is somewhat less bullish—at least as far as semiconductors are concerned—where this past year's 26% gain is expected to drop to less than 2%.

Passive components, on the other hand, can look forward to another respectable year. Specifically a 7.6% gain is called for—not all that much under the 11.8% estimate for the 12-month period just ended.

CURRENT PRICES

Few changes in month trends

December price trends show little change from previous months—with industrial averages continuing their slow, steady rise (about 3.5% at annual rate).

This time around, however, there are some sector-by-sector differences. Energy, which had been falling steadily over previous months, now seems to be stabilizing—as crude oil prices begin to turn around.

Gasoline, home heating oil, diesel fuel and jet fuel also moved higher. But all these were effectively offset by easiness in coal, natural gas, electric power, liquid petroleum gas and residual fuel—with the latter dropping by a significant 6% over the past 30 days.

Organic chemicals and plastic resins also seem to be quieting down—as increases slow from the hectic pace of this past summer and fall. Inorganics—led by a new advance in sulphur—accelerated a bit (quotes here are up a full percentage point over the past month).

Also on the worrisome side—nonferrous metals continue to advance. Copper is again the leader—though aluminum, lead, zinc, cobalt, and precious metals are all contributing to the new higher average.

Steel levels also are edging up. But there are a few signs of easiness here, too. Example: Some light plate prices have just been dropped $40-50/ton.

Capital goods quotes are still advancing at a manageable 3.5% annual rate. Most notable boosts here in recent weeks have been centered in construction machinery, mining machinery, metal cutting machine tools and transformers. A few bright spots: Trucks and motors and generators—both of which are stable to slightly lower.

Construction items—entering the slow winter season—are now basically mixed. Lumber millwork and plastic plumbing products are somewhat lower. These are being balanced out by continuing strength in wire and cable, paint, and plywood.

A similar mixed picture is shaping up in textiles. Fabrics are still basically soft. Ditto cotton. But synthetic fibers advanced last month—and additional boosts here (in polyesters, nylons, and acrylics) are scheduled for the current month.

One last reassuring note: of the 50 or so subgroups monitored each month by *PW*, some 12 showed declines and another three no change—hardly a sign of any impending inflationary surge.

PROCUREMENT STATUS REPORT

Indicators show leadtimes leveling

Leadtimes continue to level off (see chart)—a fairly encouraging sign inasmuch as both orders and deliveries usually show a seasonal spurt at this time of year.

A new Federal Reserve report also suggests that things are beginning to stabilize. The study notes that, although manufacturers' orders are still brisk, their backlogs are beginning to fall. The Fed further adds that strains on productive capacity, which have led to some price increases, may also be easing up a bit.

This latter conclusion is supported by a new NAPM Business Survey report on prices. Figures here show the gap—between those being hit with increases and the lucky few who are experiencing declines—has been narrowing.

Upshot: Overall price pressures, as measured by the NAPM diffusion index (a yardstick where 50 is considered neutral) have dropped. Note the latest 70 index reading is more than 10 percentage points under levels prevailing this past summer.

Similar improvement is seen in NAPM's speed of delivery rundown. Specifically, the number reporting slowdowns has dropped substantially. Result: The diffusion index here has slipped to around the 52% mark.

All this is not to say that there aren't problems: Take a look at the still-impressive list of items on the NAPM short-supply list. Included at this time are aluminum, copper, stainless steel, bleached paperboard, plastic resins, alkalis, ethylene and its derivatives, titanium dioxide, bearings, rayon and DRAM electronic parts.

But some of these may soon be off the list. Thus the recent decision of a major rayon manufacturer not to shut down should help the synthetic fiber come back into better balance. And on the DRAM front, increasing supplies are beginning to hit the market—to the extent that some even feel a new glut could be in the making sometime later this year.

But perhaps the most encouraging sign of all regarding general availability is an expected 1989 deceleration in production gains—all at a time when new capacity is coming onstream. Implication: the factory operating rate (84% at latest report) is about to peak out and edge down as the year wears on.

Productivity gains hold down prices

Don't underestimate industrial productivity gains as a price-rise inhibitor.

Overall factory efficiency has been advancing at a solid 3.5% annual rate over the past few years. And even this doesn't tell the whole story, as some individual industries do even better.

Thus a new Bureau of Labor Statistics survey finds that better-than-6% increases were recorded in 1987 by the paper, synthetic fiber, tire, steel, aluminum rolling, TV, and semiconductor industries.

Nor was 1987 a particularly special year. Gains are equally impressive for many of these industries over the longer pull (the past decade—see chart). Over this extended period, the TV and semiconductor industries managed to rack up double-digit annual advances.

Bullishness is also suggested by the fact that over the last recorded year, productivity increases were noted for two-thirds of the 99 industries where current data is available. That's not too much different than a year earlier, when efficiency gains were recorded for about 75% of the surveyed sectors.

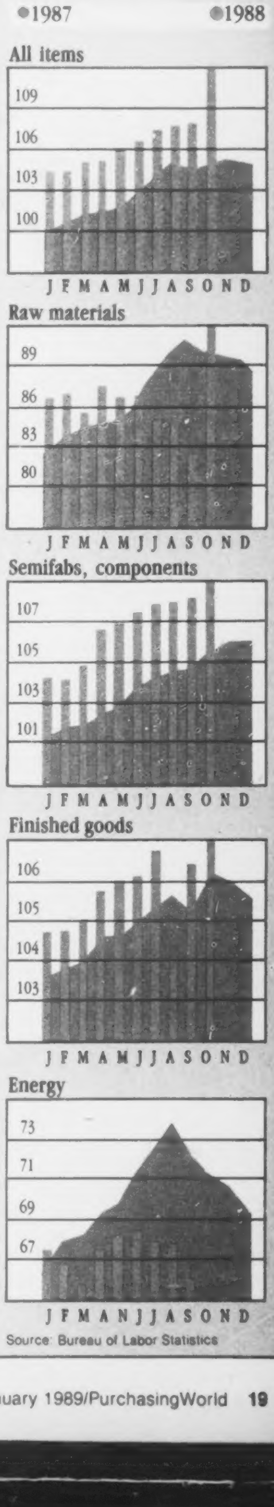
The impact of such gains on prices can best be appreciated by comparing them with wage rate increases. For all manufacturing, the 3.5% output per manhour gain over the past few years more than offset a 3.3% annual rate of wage advance. Upshot: A fractional decline in unit labor costs—a key determinant of overall inflationary pressures.

Moreover, zero in on durable goods, and the picture looks even more encouraging. Annual efficiency gains here over the past two years have been in this critical subsector by almost a full percentage point.

Continued ...

Industrial prices

(Index: 1982 = 100)



Source: Bureau of Labor Statistics

STEEL SCENE

Slowdown spills into '89

The steel demand slowdown of the past few months is likely to spill over into early 1989.

At least that's the expectation of the nation's metal buyers and steel service centers. On the purchasing manager score, one out of every three responding to a new NAPM survey says they expect to cut back on their steel procurement over the next three months—nearly five times the minuscule 7% who plan to add to their holdings.

And on the distributor

Continued ...

This month's breakdown

Index: 1982 = 100

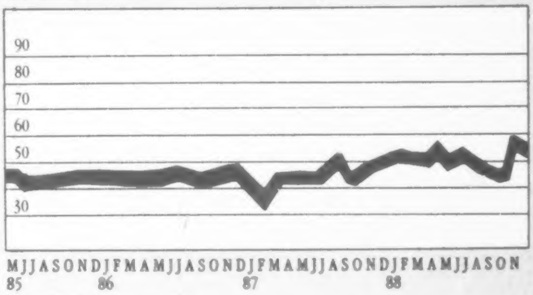
	Latest level (Oct)	% change from: Month ago	Year ago
Bearings	120.8	2.2	11.3
Bolts, nuts, etc	108.0	0.2	4.5
Chemicals, inorganic	104.0	1.2	9.5
Chemicals, organic	114.9	0.2	17.5
Concrete products	110.1	0.2	0.5
Corrugated cartons	111.6	0.2	5.9
Cutting tools, small	108.2	0.4	1.7
Electric lamps (bulbs)	122.1	−1.1	−0.7
Electronic components	118.3	0.3	2.6
Fans and blowers	115.2	1.1	4.7
Foundry and forge products	111.3	0.2	4.3
Fuel oil (residual)	36.5	−5.9	−30.9
Furniture, commercial	125.9	0.2	5.0
Gasoline	58.7	4.6	−3.5
Glass, flat	110.7	0.3	2.1
Glass containers	111.9	−0.1	−0.5
Gypsum products	115.1	1.2	−4.7
Hand tools	122.3	0.4	4.7
Hand tools, power driven	113.1	0.9	3.4
Industrial furnaces	122.0	0.2	6.3
Integrating and measuring instruments	115.1	0.1	0.6
Internal combustion engines	112.3	0.0	2.6
Lubricating oil	106.5	−1.1	6.2
Lumber millwork	122.9	−0.5	2.9
Material handling equipment	109.1	0.4	4.4
Metal containers	111.2	−0.3	1.30
Metal mill shapes (nonferrous)	138.8	2.3	21.2
Metal tanks	106.9	0.7	9.5
Motors and generators	124.0	−0.2	6.0
Motor trucks	130.1	−0.1	4.8
Office and store equipment	108.0	0.2	2.3
Paperboard	136.5	0.0	11.4
Paper boxes and shipping containers	126.3	0.3	6.1
Paper office supplies	118.3	1.0	8.3
Paint	114.4	0.5	5.4
Plastic resins	140.3	0.4	19.5
Precision measuring tools	122.1	0.6	4.6
Pumps and compressors	111.2	0.7	5.1
Refractories	115.2	0.5	3.7
Rubber belts and belting	108.0	−0.2	4.3
Scales and balances	106.7	0.4	2.4
Steel products	113.1	0.6	6.7
Switchgear	114.2	−0.1	3.6
Textiles, synthetic fibers	99.5	0.8	6.6
Textiles, gray fabrics	114.3	−0.1	3.2
Tires and tubes	95.0	0.0	4.5
Transformers and power regulators	109.4	0.7	2.2
Welding equipment	118.1	−0.8	5.5
Wire and cable	141.9	7.3	23.6

NAPM procurement trends

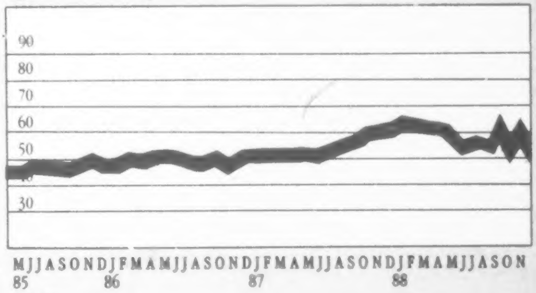
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

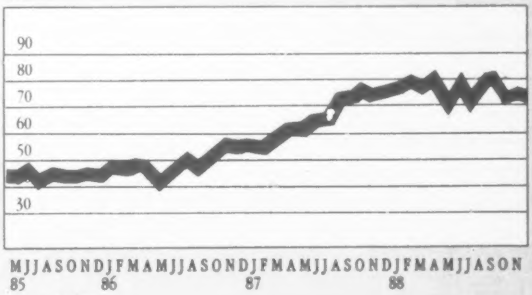
Inventories



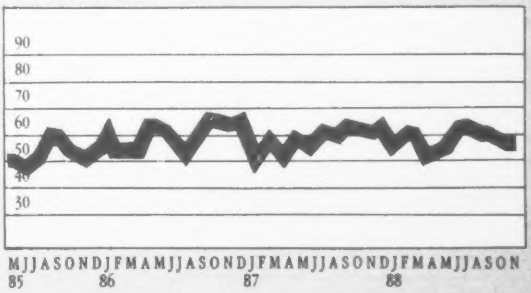
Speed of delivery



Prices

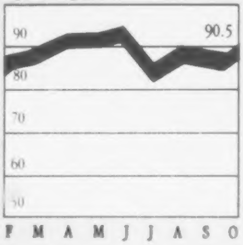


New orders

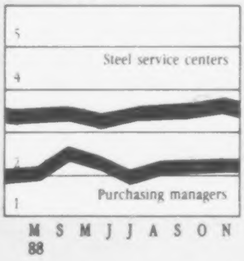


Steel

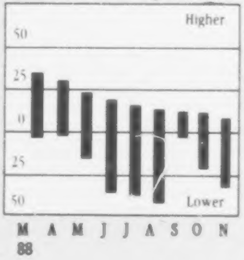
Operating rates



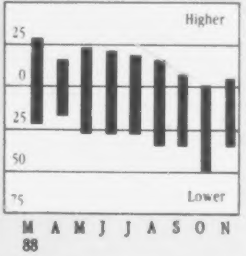
Inventories
(Months supply on hand)



Demand
(Percent of respondents)
Service centers incoming orders



Steel buyers



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

front, the latest Steel Service Center Institute (SSCI) survey tells the same story—36% anticipating cutbacks in incoming orders from end user customers *versus* only 10% who are hoping for a business uptick.

Less impressive industrial production gains are playing a role in this projected demand slowdown. But so are attempts to bring inventories down. The average steel buyer, according to the latest NAPM survey, cut stocks substantially over the past month—as days' supply dropped to only 1.83 months, well under the 2.1 month average of the previous 90 days.

And judging from what they say, further tonnage reductions may be in order. Thus 53% are calling for additional stock paring and not one single PM is anticipating any buildup. To be sure, buyers generally tend to give more emphasis to cutting in these kinds of surveys. But the preponderance of reduction would suggest they really mean business this time around.

SSCI president Andrew G. Sharkey points out, "There is currently more inventory in the total manufacturing system than originally anticipated." And this would seem to apply to his own service centers as well as end users.

Thus the average distributor at latest report was holding close to a 3½ month supply—about ½ month more than a year earlier. As Sharkey puts it, "The inventory/sales ratio is too high—particularly in stainless steel, carbon plate and alloys."

If nothing else, all this retrenchment has reduced fears of tightness. Only about one out of three buyers is currently concerned about shortages—a far cry from six months earlier when 85% of those queried admitted to some nervousness. In any case, the only product areas getting close scrutiny these days are plate, coated sheets and bars.

Another bit of evidence of improving supply-demand balance: The American Iron and Steel Institute operating rate is currently down near 85%. That's five percentage points under the level prevailing as recently as September.

And this rate could be heading even lower. Talks with mills suggest the industry will ship only about 20 million tons of metal over the first three months of the year—off about one million from the comparable 1Q, 1988.

Slower demand may also be putting a damper on new price increases. Indeed, nearly one out of every four queried service center executives expects steel replacement costs to drop during the next six months—the highest such reading since this question was first posed two years ago. Equally significant, the number actually tops the 19% who say they are still bracing for boosts.

Still another indication of a more competitive market: Roughly 25% of foreign mills are said to be more active in seeking business from domestic service centers. That compares to a 2% activity rate noted as recently as this past June.

The percentage of buyers reporting more interest on the part of overseas sellers is also up—10% currently *versus* the near-zero interest of a few quarters back.

In short, it looks like a much more competitive year—better market balance and much more price infighting: See PW Predicts for further comments on how steel markets are likely to fare in the months and quarters ahead.

Telcom market continues growth

The U.S. telecommunications market will continue to show faster-than-average growth—not only over the new year but into 1990 as well.

A new projection by the North American Telecommunications Association (NATA) puts the dollar growth at 4%. And an even more impressive 10% advance is seen for the following year—with totals reaching $33.8 billion.

But there are some individual product exceptions to this trend. Central office switch sales are expected to remain flat over the next few years as local exchange companies wait for existing analog switches to depreciate before converting to digital. In any case, the advent of the Integrated Services Digital Network should hasten the conversion to digital.

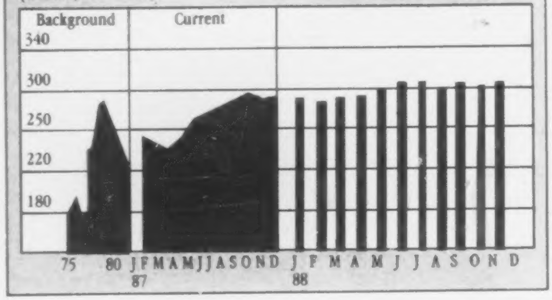
The market for all network equipment, meantime, increased significantly last year to some $10 billion—up from just $8 billion in 1987. NATA says much of this growth comes from the increasing popularity of cellular phone systems.

Continued ...

Raw material price barometer

(Index 1967 = 100)

Last month 305.0
Month before 306.4
Year ago 292.0



LATEST SPOT MARKET PRICES

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	16.50	16.50	16.50
Steel, bars, Pitts., cwt.	16.50	16.50	16.50
Steel, bars, C.R., Pitts., cwt.	19.45	19.45	19.45
Steel, plates, Pitts., cwt.	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt.	28.15	28.15	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	1.075	1.075	.810
Antimony, N.Y., dealer, lb.	0.95	0.95	1.10
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.18	2.08	1.84
Brass, yellow, [sheet], lb.	2.14	2.04	1.79
Cadmium, N.Y., dealer, lb.	7.40	6.00	3.00
Copper, electrolytic, wire bars, refd., lb.	1.55	1.45	1.20
Copper sheet, over 24 in., lb.	2.27	2.17	1.93
Lead, common, N.Y., lb.	.40	.40	.42
Magnesium, pig ingot, [99.8%], lb.	1.63	1.58	1.53
Mercury, 20 fl. lots, N.Y., fl.	275.00	285.00	325.00
Molybdenum, oxide, dealer, lb.	3.41	3.45	2.80
Nickel, cathode, dealer, lb.	6.30	5.35	3.03
Platinum, dealer, oz.	596.00	574.00	510.00
Silver, N.Y., oz.	6.18	6.49	6.92
Tin, N.Y., dealer, lb.	3.42	3.41	3.18
Zinc, Prime West, East St. Louis, lb.	.750	.725	.450
Zinc, die casting alloy, No. 3, lb.	.835	.805	.505
PAPER			
Uncoated book #3 offset, ton	965.00	965.00	890.00
Watermarked bond, ton	1080.00	1080.00	985.00
Gummed sealing tape, carton	17.93	17.87	17.14
Grocery sacks, ton	460.00	460.00	410.00
Solid bleached paperboard, ton	730.00	685.00	650.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	380.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.280	.277	.274
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.18	0.89	1.24
Cotton middling, 1", N.Y., lb.	.515	.523	.596
Printcloth, 48", 80x80, N.Y., spot. yd.	.50	.48	.63
Army duck, 37", 13 oz., yd.	1.50	1.50	1.51
Blended printcloth, 64", 78x54, yd.	.70	.66	.80
20s combed yarns	1.80	1.80	1.74
Wool 64s, Staple, lb.	4.50	4.75	3.00
CHEMICALS			
Acrylonitrile, tanks, lb.	.360	.360	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	91.00	91.00	75.00
Benzene, petroleum, tanks, Houston, gal.	1.80	1.26	.89
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.760	.735	.780
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.60	.58	.36
Naphthalene, crude, tanks, lb.	.22	.22	.22
Phthalic anhydride, tanks, lb.	.35	.35	.32
Polyethylene resin, low density liner film grade (market place), lb.	.515	.515	.385
Polypropylene, homopolymer grade (market price), lb.	.505	.510	.470
Polystyrene, general purpose grade (market price), lb.	.590	.600	.535
Polyvinyl chloride, pipe grade (market price), lb.	.44	.44	.38
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.47	.45	.40
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	142.00	138.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.95	.95	.80
Xylene tanks, gal.	1.30	1.13	.78
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	329.06	334.94	333.75
Lumber 2x2 pine, mbf, cl	319.52	319.18	326.35
Plywood, plyform, ¾", msf, cl	564.50	567.75	568.05
Plywood, ⅝", msf, cl	378.90	382.32	394.90
Cement, bulk, ton, tl	64.17	64.27	63.73
Sand, ton, cl	7.22	7.22	7.12
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.67	48.31	48.83
Crushed stone, 1½", ton, cl	6.75	6.75	8.31
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	92.28	92.28	N.A.
Reinforcing bars, whse base; per cwt	20.85	20.85	19.67
Asphalt paving AC-20	108.96	114.39	140.30
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	7.26	7.26	6.98
Concrete sewer pike, 24", prem. joint, per foot, cl	17.73	17.73	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	15.84	13.95	18.30
Diesel (reseller rack, Chi), gal.	.470	.463	N.A.
Fuel oil No. 2 (N.Y.), gal.	.496	.441	.563
Fuel oil No. 2 (Gulf spot), gal.	.458	.426	N.A.
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	18.75	17.00	N.A.
Gasoline (reg lded NY), gal.	.498	.580	.491
Gasoline (reg unlded NY), gal.	.473	.560	.476
Kerosene (reseller rack, Chi), gal.	.518	.511	N.A.
Propane (Mt. Belvieu, Tex), gal.	.204	.195	.243
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	111.00	114.00	106.00
Steel, No. 1 hvy., dlvd., Chi., ton	106.00	108.00	105.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.230	1.170	1.015
Copper, No. 2, East, wholesale buy, dlvd., lb.	1.080	1.015	.925
Brass, red, East, wholesale buy, dlvd., lb.	1.190	1.130	.975
Brass, yellow, East, wholesale buy, dlvd., lb.	.525	.510	.405
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.615	.610	.510
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.720	.710	.585
Zinc, old, East, wholesale buy, dlvd., lb.	.24	.24	.20
Lead, clean solids, East, wholesale buy, dlvd., lb.	.270	.260	.265
Paper, No. [illegible] mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	10.00	15.00	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	20.00
Old newspapers, Chi., ton	Nom.	Nom.	N.A.
Old white ledger, Chi., ton	75.00	80.00	N.A.

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Corp America bets on good year

The nation's top corporate executives are betting on another good year. Not only do they see demand moving up another 4% or so, but they feel this kind of gain can be achieved with a modest level of inflation.

The new findings (part of a near-400-firm survey by DRI/McGraw-Hill) suggest that the average price of manufactured goods will rise by only a shade over 3%—down a full percentage point from the estimate of the 1988 average advance made by these same companies just six months ago.

The 1989 price estimate also compares favorably with the latest government figures for 1988 which show industrial producer quotes rising about 3.5%.

The new study also has some modestly optimistic projections on plant and equipment spending. The 2.5% real spending gain suggested by the survey for the upcoming year is less than the pace of the past 12 months. But it's still in the plus column—and that's what counts.

Moreover, this estimate could prove to be on the low side. Reason: Traditionally, manufacturers have tended to underestimate capital outlays when business is on the rise. And that's why we lean more to the 6.4% advance projected by *PurchasingWorld* magazine's own economic consultant, Dr. Roger Williams (see story this section).

Another indication that upgrading of the survey estimate may be in order: Last year the original forecast for 1988 called for only a 2% gain—far under the final double-digit result.

Some further comments are also needed on the rather wide industry-by-industry variation seen by these major vendors. On the price side, there's the 5.4% advance projected for fabricated metals—probably a reflection of the basic metal increases of the past year. Chemicals are also slated for a somewhat larger-than-average 4.6% increase (see accompanying chart).

On the other hand, there could be some actual easiness developing, too. Nonferrous metal producers, for instance, just don't believe current inflated tags—for copper, aluminum, lead, zinc and a host of other metals—can hold.

Steel mills, meantime, look for a continuing—though more restrained—2.3% rise. This is pretty much in line with *PW's* own forecast (see PW Predict[illegible]).

Also on the encouraging side are the near-level quotes seen for textiles and automotive industries. The latter is interesting in the face of the higher lists recently posted on new 1989 models—and probably reflects expectations of more rebates and financial inducements as the year wears on.

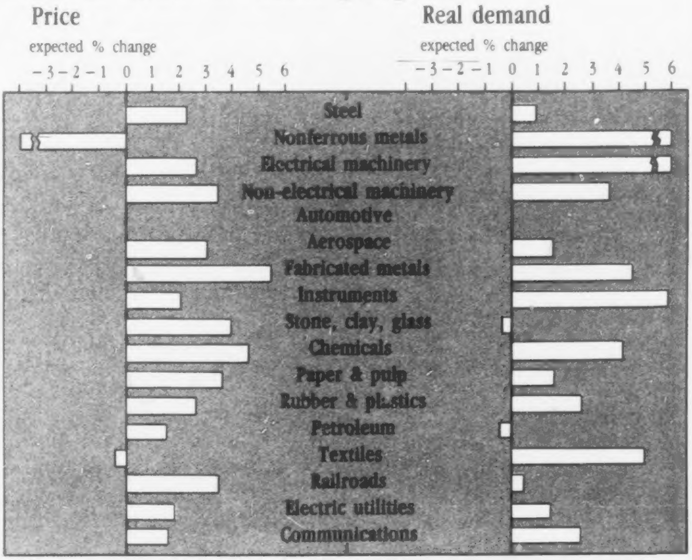
Transportation cost projections also point to no serious problems. The railroads are planning on only a 3.5% boost—and other modes (excluding air) put their increases around 2%.

A few words are also in order on the 4.6% increase projected for plant and equipment prices in 1989. Survey analysts feel this is unrealistically high—most likely because it does not take into account the higher quality equipment that is now being purchased. Make a quality adjustment to the outlays, and these prices will probably remain fairly level.

Also on the encouraging side are the near-level quotes seen for textiles and automotive industries. The latter is interesting in the face of the higher lists recently posted on new 1989 models—and probably reflects expectations of more rebates and financial inducements as the year wears on.

Finally it might be noted that industry-by-industry variations apply to demand as well as prices. Several industries will sport real sales increases well above the 4.5% average—most notably nonferrous metals, electrical machinery and instruments. Autos, on the other hand, will be lucky to equal last year's sales pace—and oil usage could actually fall by about 0.5%.

Forecast 1989: A vendor perspective



Buyers: Things look upbeat

PurchasingWorld magazine readers remain quite optimistic about the new year—even more optimistic than many business analysts, econometric models and Washington officials.

PW's annual "look ahead" survey suggests that industrial price inflation won't get any worse than it was last year. In fact, there may well be some deceleration in the rate of increase.

A similar upbeat pattern is indicated by PM answers to another query on how activity in their own firms is likely to fare in 1989. The response in a nutshell: quite good, with one out of every three respondents projecting gains of better than 5%.

Buyer attitudes are best summed up by one Sunbelt purchasing executive who observes: "Given the lack of any economic excesses and a somewhat better supply picture, there's little on the horizon to suggest any major near-term problems."

Here's what he and his counterparts around the country are currently anticipating for the next 12 months:

Prices: The average advance is put at just over 4%—a lot better than a year ago when these same readers projected boosts in the 5-6% range for 1988.

The lack of any acceleration is further confirmed by the fact that 37% of queried buyers expect price rises to be lower this year than in 1988. Add another 26% who expect the same rate of increase and it means that pricewise, more than three out of five expect to do as well as or better than they did last year.

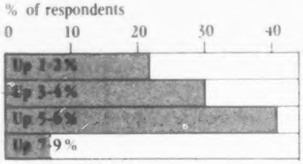
To be sure, a fair number feels there could be some price acceleration in the second half *vis a vis* the first half. But a tone of moderation is set by the fact that the majority (56%) sees price hikes remaining on their slow steady upward pattern through the year.

Demand: The average demand gain is put at around 5.5%. At the other end of the spectrum, less than one out of five expects a decline in his or her firm's activity *vis a vis* 1988.

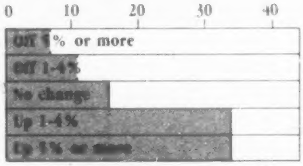
Equally encouraging, few see the economy slowing down as the year wears on. Quite the contrary. Nearly half feel second half GNP gains could top those of the first half—drowning out the minuscule 4% who feel some slowdown is likely after midyear.

How PW readers view the new year

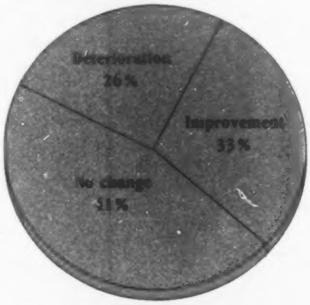
1989 prices



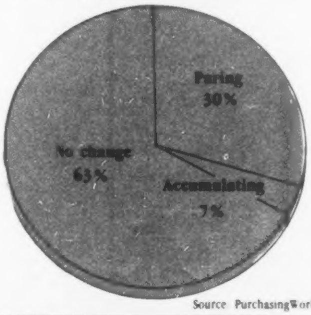
Company activity



Near-term inventories



Delivery performance



Source PurchasingWorld

Inventories: The fact that purchasing managers aim to keep stock levels lean also has to be regarded as a positive sign. Indeed, if PMs follow up on what they say, inventory/sales ratios for purchased materials may well drop. Reason: Despite the anticipated gain in activity, more buyers are now considering a drop in inventories than are considering new additions.
reason for the lack of any inventory buildup could be the anticipation of a better availability; for despite increasing demand, some 33% of queried PMs see a drop in leadtimes—actually a bit above the 26% who are bracing for stretchouts.

That's not to say that everything will be coming up roses. About one out of every three respondents still looks for spotty tightness in some areas. The product lines mentioned most often are copper, aluminum, wire and steel, steel scrap, castings and forgings, paper products, synthetic fibers and caustic soda.

Whatever the supply/demand/price trends, purchasing executives are confident they can keep things running smoothly. Some of their strategies: More long-term agreements to assure reliability and bargaining leverage, more computer use and emphasis on Just-in-Time deliveries and stepped-up efforts to roll back some of the big raw material piece increases of the past year.

Other cost saving actions contemplated include extended price guarantees, more cash discounts for prompt payment, closer liaison with vendors and more value analysis. On the latter score, several PMs note that changes in cost and availability patterns have opened up big new opportunities in this area.

As an Ohio-based buyer puts it: "There's still a lot we can do to keep costs in the tolerable range. Sure, some increases are inevitable. But last year we managed to keep our advances about 1% under the national averages—and we mean to do the same in 1989."

Don't let averages deceive you

Averages can be deceiving.

If there's any doubt on this score, at least as far as prices are concerned, take a look at DRI Price Forecasting Services' product-by-product rundown detailed in the table alongside.

While most analysts now agree that the overall near-term price trend won't be all that different from that of the past year, specific procurement items could vary all over the lot. The DRI forecasts for the year ending 4Q 1989 range from a close-to-10% advance (middle distillates) all the way to a double-digit decline (nonferrous scrap).

- **Energy:** Assuming the latest OPEC agreement holds together, a slow increase in oil from recent lows is anticipated. The average U.S. acquisition prices could run near $17/barrel over 1989, rising to $18.67/barrel in 1990 and $20.44 in 1991. Electricity rates should also climb moderately—at just under a 4% annual rate through 1990.
- **Industrial chemicals:** Strong demand and rather snug supplies should promote strong price increases over 1989—though some deceleration is likely in 1990 and 1991 as more capacity gradually comes onstream. Best bets at this time: Annual increases of 7.3% this year and 3.9% for both 1990 and 1991.
- **Steel:** Prices should remain stable and may actually weaken a bit for some products over the near term. Seasonal easiness in mid-1989 could drive down hot-rolled sheet tags, a product line which is expected to average out at near $452/ton over the 1989-1990 interval.
- **Nonferrous metals:** Copper should begin to cool off, but remain above $1/lb through mid-1989. A further modest downdrift to around 92-93¢/lb is seen by late 1990. Nickel, too, could drop, slipping to under $4/lb by the end of 1989. But the plating and alloying metal should stabilize after that—averaging in the $3.60-3.80/lb range over the 1990-91 period.
- **Machinery:** Good domestic and export demand—combined with somewhat higher input costs—will continue to firm prices. Thus the average 2.5% advance of last year will accelerate over the next 12 months to 3.2%—with an even bigger 4.1% hike seen for 1990.
- **Electronic components:** Prices will post relatively strong increases over the near term—advancing 4.1% in 1989, 4.9% in 1990 and 5.0% in 1991. But there will be exceptions, with such items as transistors rising at a much more modest under-2% rate. Behind the general bullishness in components: Expectations of continuing strong demand increases in communications equipment and computers—with production in the latter expected to rise 8.4% this year and 6.3% in 1990.
- **Construction materials:** Fabricated structural metal items will show decelerating gains as basic metal tags simmer down. Thus this past year's 8.7% gain in this area should slow to 4.6% this year and only 4.0% in 1990. On the other hand, non-metal areas should experience modest acceleration.

Price changes into 1990

(Comparison of fourth quarter pricing)

Product line	1988	% change 1989	1990
Raw materials, energy			
Low density polyethylene	36.5	9.2	7.4
Industrial chemicals	15.3	3.0	4.4
Soda ash	12.9	3.7	2.1
Processed fuels & lubricants	0.1	3.7	2.7
Middle distillates	−16.9	9.9	8.3
Metals			
Cold rolled carbon sheet	2.0	3.7	6.3
Galvanized carbon sheet	5.1	−3.9	2.0
Carbon steel plate	14.0	0.7	4.4
Alloy casings (OCTG)	4.3	6.6	3.9
Steel mill products	6.4	3.7	4.0
Nonferrous metals	12.9	−6.7	3.7
Nonferrous scrap	13.9	−21.4	10.3
Nonferrous shapes	17.8	−1.0	5.4
Components			
Adhesives & sealants	9.1	8.1	6.4
Speed changers, drives, gears	4.1	4.7	5.1
Semiconductors	1.6	2.8	1.9
Microprocessors	−4.7	−2.9	−4.1
Laminated plastic sheets	7.6	2.1	3.4
Pulp, paper & products	9.4	3.1	3.8
Bolts, nuts & screws	4.6	4.7	6.1
Electronic components	3.2	4.1	5.2
Relays	5.3	5.9	5.0
Transistors	−1.2	1.8	1.9
Construction			
Reinforced concrete pipe	0.6	4.0	3.4
Mat'l components for construction	5.0	3.2	4.3
Fabricated structural metal products	8.8	3.4	4.3
Concrete products	1.2	2.8	3.2
Gypsum products	−10.3	2.6	3.8
Asphalt products	2.4	2.9	6.6
Machinery			
Turbines & generator sets	5.6	5.0	5.4
Heating equipment	5.5	4.8	3.4
Fans & blowers	4.8	6.2	6.6
Oilfield machinery	3.8	4.4	4.6

Source: DRI Cost Forecasting Services

Econometric models: growth won't stop

Growth may slow down a bit, but it's not about to stop—not over the next 12 months and not even in 1990.

So say the nation's major econometric consulting firms, which see the nation's output of goods and services advancing at a 2-2.5% rate in real terms over the next two years (see table). True, that's not nearly as robust as the 3.8% rate of the last year, but it's not all bad considering the fact that 1989 and '90 will be the seventh and eighth straight years of business uptrend.

These projections, based on a survey of three key mathematical-oriented models (DRI, Wharton and Merrill Lynch) also suggest that recent talk of substantially higher price levels has to be taken with a grain of salt.

Specifically, three widely monitored measures of inflation are examined. And all three, while showing some price acceleration from 1988 levels, remain in the tolerable range for 1989, with no further increases anticipated for 1990.

In any case, there's agreement on 1989 among the three models as far as the all-inclusive GNP deflator is concerned. The actual estimates vary in the narrow 3.9-4.6% range (about one percentage point above 1988 levels). And for the two models where 1990 estimates are available, the figures converge around the 4.2% mark.

Equally close agreement is seen in consumer prices, where increases are expected to hover around the 5% level in both 1989 and '90—again up about one percentage point from 1988's average.

One factor likely to temper any upward price pressure is the small gain seen for industrial production this year and next. Both years will show about 2.5% advances—levels that suggest reduced supply/demand pressure on the industrial price level.

These industrial quotes (not shown separately on the table) are also likely to benefit from relatively tolerable increases in unit labor costs—as much of the expected increase in payrolls is offset by continuing manufacturing productivity gains.

How good are these econometric models in predicting? Pretty good on the price front—judging from their 1988 track record. Certainly the 3.6% prediction on the GNP deflator (made a year ago) was pretty much in line with the now-estimated 3.3% actual result.

The models' cost of living projections have also been on the money: The 4.4% projection made a year ago comparing to an actual reading of about 4.1%.

The forecasts are not that much off the mark in the volatile interest rate area either: The original 8.7% projection for the prime rate compares to a 9.3% actual reading.

Next year the average borrowing cost is put at around 10%. But there's considerable variation about this number, as the Wharton and DRI estimates of around 10.5% are offset by a Merrill Lynch projection of about 9%.

Asked to explain its relatively low figure, a Merrill Lynch spokesman attributes it to a temporary flattening of the GNP growth curve after mid-1989. This, he adds, should force the Fed to drop the prime rate from current double-digit levels to near 7.5% by the fourth quarter of the year.

The econometric models look ahead

Real GNP (% change)	**1989**	**1990**
DRI	2.5	1.6
Wharton	2.4	2.4
Merrill Lynch	2.2	NA
AVERAGE	2.4	2.0
Industrial production (% change)		
DRI	2.6	1.6
Wharton	2.6	2.9
Merrill Lynch	3.1	NA
AVERAGE	2.8	2.2
GNP price deflator (% change)		
DRI	3.9	4.2
Wharton	4.2	4.2
Merrill Lynch	4.6	NA
AVERAGE	4.2	4.2
Finished producer prices (% change)		
DRI	5.1	4.8
Wharton	3.7	2.6
Merrill Lynch	4.7	NA
AVERAGE	4.5	3.7
Consumer prices (% change)		
DRI	5.0	4.9
Wharton	4.7	4.7
Merrill Lynch	5.0	NA
AVERAGE	4.9	4.8
Prime interest rate (%)		
DRI	10.6	9.9
Wharton	10.3	9.7
Merrill Lynch	9.1	NA
AVERAGE	10.0	9.8
Unemployment rate (%)		
DRI	5.4	5.8
Wharton	5.5	5.8
Merrill Lynch	5.7	NA
AVERAGE	5.5	5.8

Business committee surveys 1989

The prestigious NAPM Business Survey Committee is accentuating the positive—citing increased exports, strong capital spending, and moderating inflation as factors pointing to what it sees as another very good year.

At a New York press conference last month, the committee reported that, on the inflation front, the more than 250 purchasing executives surveyed project a net average price increase of 3.7% in 1989—down from the 5% advance reported for the year just ended. Moreover, some 72% of those queried see these increases as selective rather than across the board —with an even more impressive 94% expecting them to be slight or moderate rather than severe.

Commenting on prices, Robert J. Bretz (chairman of the NAPM committee and director of materials management for Pitney Bowes) feels several factors are behind this relatively optimistic inflation projection. For one, he cites the huge runup in raw materials last year that allowed vendors of these materials to more than catch up with costs.

Two other factors noted by Bretz: 1) A rise in production capacity which should more than match relatively modest increases in demand and 2) a U.S. dollar level that still provides opportunities for overseas sources to sell here at attractive prices.

Some of the other key findings of the just-released survey:

- **Activity:** Purchasing managers see the first half of 1989 topping the last six months. And while some deceleration in the rate of gain is anticipated after midyear, more than half (54%) see 1989 as better than 1988—with another 33% anticipating a relatively level pattern and only 13% fearful of a decline.
- **Capital spending and operating rates:** The trend toward more capacity noted above is likely to continue—as 42% of queried PMs see their firms upping plant and equipment outlays—almost double the 24% who plan on declines.

Also indicative that availability problems may be peaking: The number of firms operating at 90% of capacity or more has held steady at 58% over the past six months—in marked contrast to the sharp climb of the previous few years.

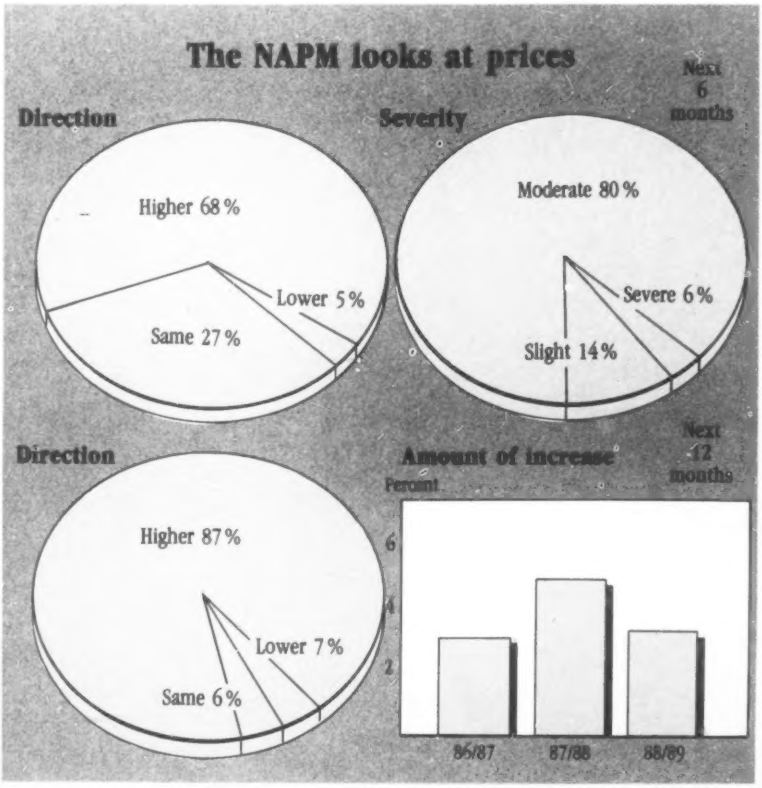
- **International trade:** Some 52% of surveyed firms expect a moderate increase in exports over the next six months. Another 5% see a substantial increase and only a minuscule 4% are talking about cutbacks here.

Imports, meantime, should inch ahead—confirming Bretz' previous remark about the continuing availability of overseas bargains in some areas. In any case, 31% plan on some increases in incoming shipments over the next six months—more than double the 13% who feel import totals could shrink a bit.

Purchasing executives' basic optimism is further backed up by the fact that some 48% are satisfied or optimistic about the next 12 months—up from the 42% reading of a year ago when a similar question was asked about 1988.

That's not to say that there aren't concerns—namely about interest rates, the budget deficit, vendor deliveries, and even inflation. But most PMs don't see these as presenting any insurmountable near-term problems.

The outlook is best summed up by Bretz: "Overall, purchasers feel that 1989 will be better than 1988—and 1988 was a good year."



...Continued from page 27

productivity in some of the product lines that caused bottlenecks this year.

PW: The impact of this on prices?

Behravesh: These factors should help to alleviate availability problems and ease price pressures on some of the basic materials that have seen big price hikes last year. However, more finished products will get their price push this year as some of this year's input cost increases are passed through and labor cost pressures intensify.

PW: How will the dollar fare?

Behravesh: The dollar will continue to slide. As long as the trade deficit remains large there will be continued downward pressure on the dollar. The dollar will depreciate another 5%-10% in 1989.

PW: Any further improvement in our trade balance?

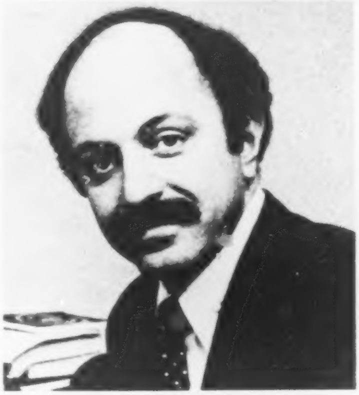
Behravesh: The trade deficit has improved dramatically in volume terms and the improvement will continue. The lower dollar means that U.S. goods are now very competitive in world markets. The cheaper dollar also means that imported goods are more expensive. The higher price of imports offsets some of the volume improvement in trade, so in dollar terms the improvement in the trade deficit will be very modest.

PW: Any progress in balancing the Federal deficit?

Behravesh: Improvement will come slowly. But it is possible for Mr. Bush and the Congress to come up with a package that could cut the deficit by $25-$30 billion a year over the next few years. This could balance the budget by the mid-1990s without triggering a major slowdown in the economy.

PW: Which industries will be strongest in 1989?

Behravesh: This time last year we talked about a good 1988 for the machinery industries, due to a rebound in domestic capital spending and a surge in exports. That good year materialized and even surpassed our expectations, particularly in the demand from overseas. The story for 1989 should be very similar with the capital goods industries expected to lead the pack in growth once again.



Dr. Nariman Behravesh

PW: Which industries will be weakest?

Behravesh: The nondurable goods industries in general will see slower growth than will durables. Textiles and apparel will be particularly flat due to slowing consumer demand and stiff import competition. The domestic auto industry will also likely see little if any growth in 1989, for the same reasons. The housing market will be off its 1988 pace due to rising interest rates, so many building suppliers will see reduced activity.

PW: What are your long-term projections?

Behravesh: Over the next ten years real GNP growth will average about 2.5% and inflation will average about 4%. The relatively modest growth is the result of slower labor force growth and decent but not spectacular gains in productivity.

PW: Which industries will fare best over the next decade?

Behravesh: The strongest growth over the coming decade will be concentrated in a) the high-tech industries, such as computers, electronic components and communications, which will see growing applications of their products in all areas of the economy; b) the machinery and industrial construction industries, which will benefit from relatively strong capital spending and c) industries, including machinery, chemicals, and paper, which can take advantage of the weaker dollar in export markets around the world.

PW: Which industries will be weakest?

Behravesh: Slow growth will be seen in some obvious problem sectors, such as leather, which has lost its markets to other materials and to imports, and energy (particularly crude petroleum and natural gas mining). Some of the agricultural sectors, including fertilizers, also will be weak, and many of the housing-related industries will be hurt by changing demographic trends.

PW: Any advice for buyers?

Behravesh: In the near-term the risk of inflation is greater than the risk of recession which means that purchasing executives should keep their sourcing options as flexible and open as possible. In the medium-term the risks of a recession are greater given the age of this recovery. This means more need to remain vigilant about inventory levels. The weaker dollar also suggests the possibility of more domestic sourcing for materials and supplies that are currently being imported. These U.S.-made products will become more and more price competitive over the course of 1989.

Forecast '89
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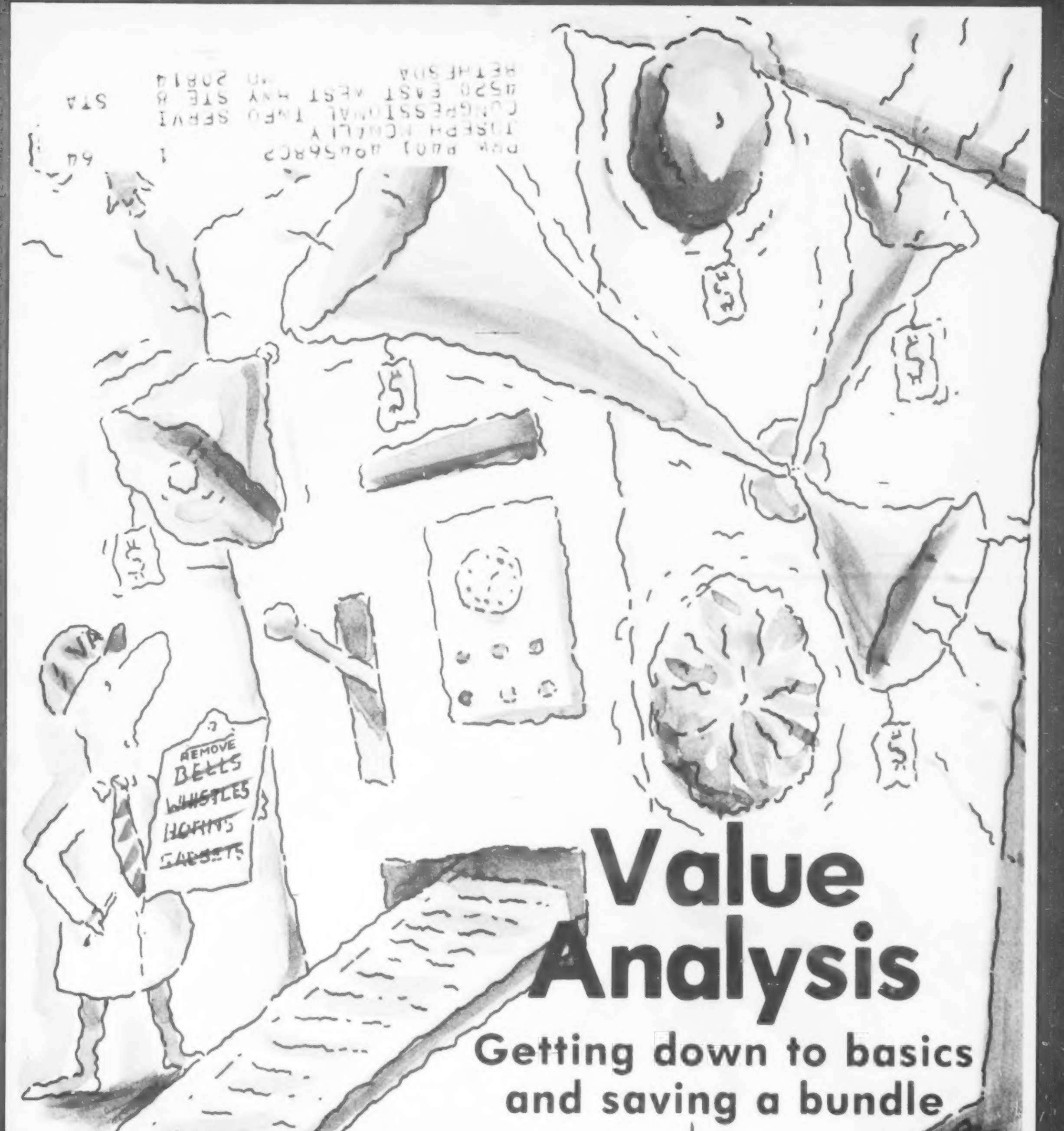
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Value Analysis

Getting down to basics and saving a bundle

Bar coding adds speed, accuracy

Transportation: make or buy • Dangers of downsizing purchasing

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by Robert S. Reichard, editor-in-chief

Rate of price increases slows

The pace of price increases seems to have slackened off a bit over the past few months.

Thus the bellwether NAPM Business Survey Committee reports that only 39% of its 250 members were socked with boosts over the latest 30-day period. While hardly Nirvana, this has to be regarded as good news—it represents the sixth consecutive month that the rate of advance has been slowing down. More to the point: The NAPM diffusion index for prices (where 50 is the neutral point) has dropped to 68.4—some 16 points under the 84.5 peak hit this past spring.

The deceleration in the overall inflation rate is also confirmed by the government's comprehensive industrial producer price index. Increases here over the past few months have averaged out at less than 2% at annual rate. And while it would be unrealistic to expect this rate of advance to continue, it does seem to knock the slats out from under the gloom-and-doom mongers who continue to project bigger-than-1988 price boosts for the new year.

Results of a new survey of some 38 top economists also has to be regarded as encouraging. True, the average estimated increase for 1989 seems high, but that's because the focus is on the cost-of-living index which traditionally runs ahead of industrial prices. The point to keep in mind: The 5.0% annual rate seen for both the first and second half of 1989 is basically unchanged from the 4.8% figure recorded over the past six months.

The presitigious Organization for Economic Cooperation and Development (OECD) is also optimistic. Looking at the all-inclusive GNP price deflator, the group puts the U.S. advance at only 4.5% this year—actually a fraction under the 4.75% seen for all of Western Europe.

Why the continuing price restraint? One factor has to be the lack of any big jump in wage inflation—probably due in large part to lingering worker concerns about job security. When push comes to shove, workers are still fearful, and are willing to accept less than they might otherwise have demanded. Lest there be any doubt on this score, take a look at latest Labor Department estimates which show the hourly pay level for production workers up by less than 2% in 1988.

Another factor behind wage restraint could be declining labor clout. Only 17% of the nation's wage workers are now unionized—significantly under the 23% figure which prevailed as recently as 1980.

The talk about a capacity crunch fueling a new wave of inflation also seems overdone. As the story on page **14** suggests, the high point in factory operating rates may already have been reached.

But even current utilization rates may not be as troublesome as first blush might indicate. For one, the government capacity yardstick may have become outmoded—or at least it doesn't have the same meaning it once did. That's because computerization and restructuring have made American manufacturing much more efficient than it was a few years ago. It is becoming increasingly clear that industry can now raise factory utilization levels higher than previously thought before hitting production bottlenecks.

Here comes more paper

Good news for paper and paperboard buyers: A fair amount of new capacity is on the way—suggesting that the worst of the 1987-88 supply pinch may be coming to an end.

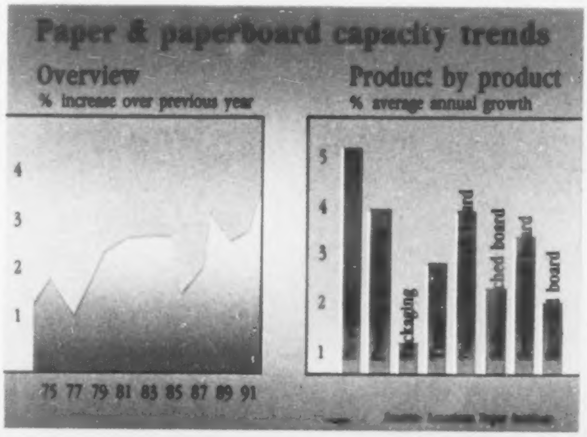
New American Paper Institute (API) figures, for example, indicate that about 2.8% will be added to industry production potential during the current year. And 3.5% and 3.7% advances are scheduled for 1990 and 1991, respectively (see chart).

All told, construction of new mills and other improvements should be adding 8,249,000 tons to the industry's manufacturing base over this three-year period. This, in turn, should boost potential output to near 88,564,000 tons by 1991.

This is probably more than any likely increase in paper and board demand over this same time span. Demand should advance at only a 2-2.5% rate over the next few years-0- slightly under the 2.5-3% GNP increase anticipated. This kind of paper/GNP lag is considered normal for the latter stages of a business upturn.

Next, superimpose this 2-2.5% demand rate on an average 3.3% rate of capacity addition through 1991—and some drop off in mill operating rates seems quite likely.

This doesn't mean that rates will fall through the floor; it suggests a slow decline from the 97% average of 1988—a year which saw even higher rates for kraft linerboard and semichemical board (100-101%), newsprint (100%), and coated papers and uncoated free sheet (98%).



Source: American Paper Institute

Aluminum supplies improve

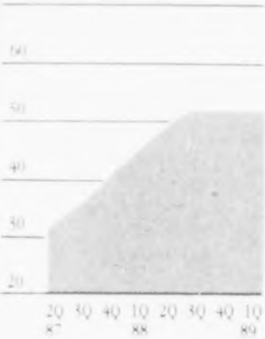
A slowly improving supply situation should keep prices under wraps. Some declines are a distinct possibility by spring or summer—particularly now that the threat of a big U.S. strike has been eliminated. And a lot of new capacity is coming onstream in Australia, India and Venezuela. On the other hand, with producer inventories at historical lows (less than a 3-month supply at latest report), any near-term easiness should be quite modest—with ingot unlikely to drop under $1/lb. Demand could put a floor under prices. U.S. producers now predict a 2% increase in shipments—on top of last year's 3.4% advance.

Inventory corrections in components

End-user inventory corrections will be slowing demand this year. Semiconductor shipment gains could fall under 5% in 1989—far under the 25% increase of the past 12 months. This, in turn, will lead to some semiconductor price erosion. Digital ICs could fall almost as fast as they rose in 1988, as memory and logic chips become more abundant and manufacturing capacity increases. Best bet: About a 7% decline in the average semiconductor tab over the year. As for passive components: The demand decline will be smaller—from 10.5% in 1988 to 7% in 1989—and prices here could continue to increase, albeit at a slower rate than in 1988.

Electronic component prices

(Index: 1982 = 100) 1987



Copper average coming down

Markets continue nervous—though fundamentals seem to point to some fall-off from recent peak levels. On the availability front, for example, Free World mine capacity is expected to rise by almost 5% this year. And this will eventually reverse the recent inventory downturn—with some modest buildup likely after midyear. This is supported by one producer group which now puts 1989 refined production at 8,384,000 mt—about 180,000 above anticipated consumption. While it's hard to predict month-to-month price changes, the feeling is that the average quote this year could come down to $1.20/lb. That's under current levels but little changed from last year's average.

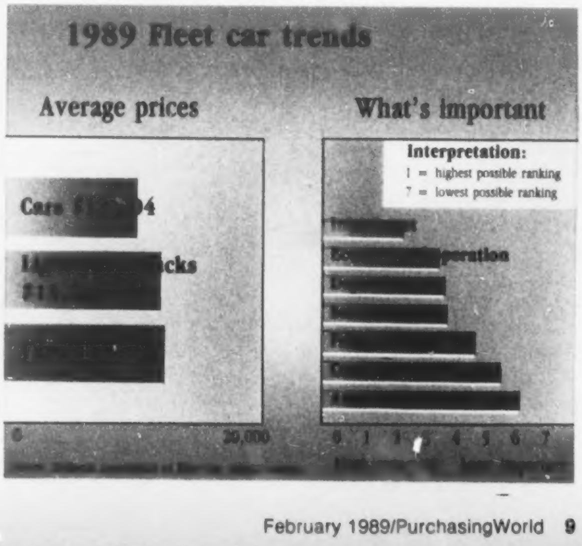
Fleet managers speak out

Figure on the average 1989 model fleet car costing around $12,800—with outlays for light-duty trucks and vans put in the $13,500 range.

So say some 476 transportation managers responding to a new National Association of Fleet Administrators survey. They also note that initial cost is the primary consideration when making their choices—though several other factors also play an important role—most notably economy of operation, depreciation and serviceability.

Other key findings of the study:

- **Imports:** Foreign makes don't figure very heavily in fleet plans. Indeed, overseas models are expected to account for less than 1% of total purchases this year.
- **Lease/purchase:** Some 49% of current fleet vehicles are leased, 51% purchased outright. Generally speaking, commercial fleets tend to lease more than public service ones. Also, survey responses suggest a slight shift toward leasing during the new year.
- **Size and type of vehicle:** An overwhelming 92% contemplate no changes—though comments by the remaining respondents suggest a slight shift over from mid-size to compact models.
- **Make of vehicle:** A surprise here—year-to-date purchases show Ford with 30.3% of the market—not much under the 34.0% noted for GM. The remainder: Chrysler (18.1%) and unspecified or imports, 17.6%.
- **Options:** The items fleet managers generally would like include power brakes, automatic transmission, dual side mirrors, power steering, air conditioning, tinted glass, all-season tires, floor mats, rear defroster, fuel injection, pulse wipers and AM/FM radio. All except compacts are preferred with 6-cylinder engines.



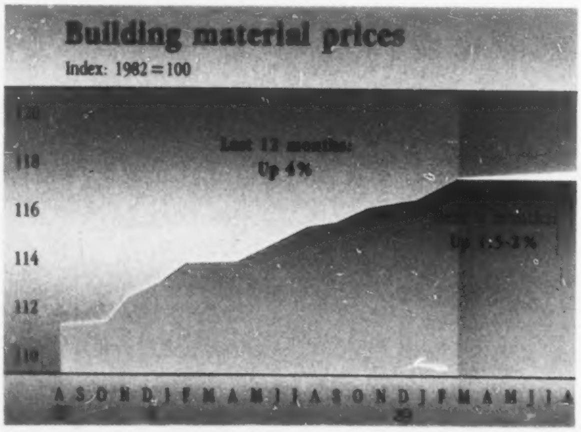
Building materials: good news

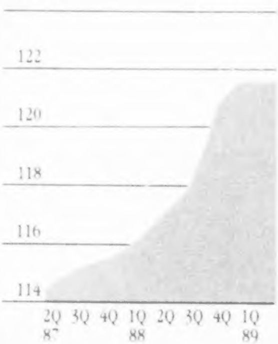
CURRENT SITUATION: The industry is coming off a good year—thanks to a fairly strong demand and ample supplies. **Prices haven't been much of a problem for buyers—at least not on an overall basis, where averages moved up only 4%** (in line with the general inflation rate). There were exceptions—most notably in wire and cable and structural steel where increases of 31% and 14%, respectively, were reported. Higher-than-average boosts were also noted in plastic construction products (12%) and sheet metal products (9%). Lumber and cement tags remained pretty much unchanged.

DEMAND: Some falloff seems inevitable as higher interest rates impact negatively on building activity. Right now construction looks to drop a few percentage points in real terms—and this will slow purchases of most materials **Softwood lumber** consumption could be down as much as 6% as housing starts slip by a similar amount. Less housing also means reduced demand for **roofing materials, gypsum and plumbing fixtures.** The Portland Cement Association is also bearish—projecting a 5.2% drop in 1989 **cement** consumption. And a bigger than 15% fall in commercial construction suggests sizable declines in purchases of **structural steel shapes.**

SUPPLY: No problems are anticipated. Given the above demand forecast, there should be more than enough to go around in most areas. **But major gluts should be avoided.** A sampling of operating declines (based on Wharton Econometric projections) points to **only 2-4% utilization. Slippage in such key areas as lumber an wood, building material and wire, and paving and roofing products.** Cement should not be hurting—as the projected demand falloff is offset by lower imports and the absence of any big capacity additions.

PRICE OUTLOOK: The news is good. The overall advance for 1989 will be a bit under 1988 levels. **And substantial deceleration is seen for sectors which last year experienced big runups. Wire and cable prices should be off as much as 6%. Only small boosts are anticipated for plastic construction products (3%), structural steel shapes (2.5%) and steel metal products (3.5%). True, cement will rise about 2.5%** (*versus* 1988's no change).




High-density polyethylene
(¢/lb.)

HDPE prices hold

Temporary voluntary allowances have wiped out a new 1-3¢/lb. increase. Upshot: Injection and blowmolding types are holding the 52-53¢/lb. range. Part of the softness stems from weak demand. But another factor could be producer concern about polypropylene—a resin which is softening and already has a competitive edge over HDPE. An 8-9% capacity increase (about 3-4 percentage points above expected demand gains) could be another price rise inhibitor. And still another 9% boost in production potential is scheduled for 1990.

Steel softening

Some softness has developed with several percentage points being chopped off flat rolled spot prices. This, in turn, just about rules out implementation of the $15-30/ton hikes that had been scheduled for earlier this year. True, contract quotes are up *vis a vis* 1988. But the average realized price hike for the year as a whole is likely to be quite modest—no more than 4% (half the estimated 1988 advance). One reason for the moderation: An expected drop in demand, with domestic shipments for 1989 likely to fall into the 78-79 million ton range—about 5% under last year.

Facsimile machines boom on

Last year's booming market is spilling over into 1989. A new Computer and Business Equipment Manufacturers Association (CBEMA) projection puts this year's total sales at between 1.6 and 1.7 million units—up some 47% from 1988 levels. And that's on top of last year's huge 91% increase. But despite this surging demand, unit prices should continue to decline. This year the average machine is expected to go for only $2,035—down 11.5% from last year's $2,300 estimate.

Copiers continue price decline

CBEMA forecasts here are for somewhat more subdued demand increases. Thus the overall advance seen for 1989 is only in the order of 6%—as totals read 1.34 million units. But average unit prices here will continue to decline—about 4% from $3,749 in 1988 to $3,601 for 1989. This follows a similar decline for the year just ended.

Pneumatic tool demand increases

Budget for about a 7% increase in average prices this year—with this estimate equally applicable to tools destined for the auto, industrial and construction markets. One factor: Demand has been increasing—thanks in large part to the soft dollar. Then, too, there's the need for toolmakers to shell out hefty sums to improve quality, introduce new manufacturing processes, and retool for new products.

Industrial gas prices increase

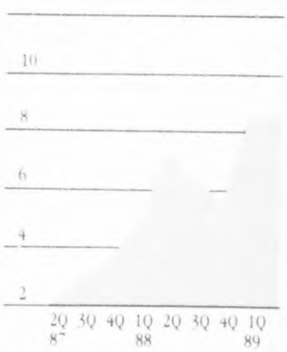
Reductions in discounts announced in mid-1988 have been followed by new increases effective the beginning of the year. These new boosts are expected to hold up as demand continues strong—with volume totals holding steady after the 4% and 3% advances of 1987 and 1988, respectively. Oxygen, nitrogen, and hydrogen continue to be the big volume markets—though demand for the latter has eased because of reduced aerospace activity. Smaller volume argon is up because of the electronics surge.

No price fall for nickel

Hopes of a continuing price fall have been dashed. Blame the recent rally on production problems both here and abroad. Another factor: Buying in recent weeks has been stronger than anticipated—as users move to build up depleted inventories. Upshot: Market tightness which is now expected to persist for at least another few months. This, in turn, could make for further near-term boosts—though some weakening is possible over the medium term (spring) as markets come back into somewhat better balance. Also indicative that the current surge is temporary: Domestic primary consumption in 1989 is put at only 132,000 tons—some 3% under 1988 levels.

Nickel

(dealer cathode) ($/lb.)



Zinc and lead

The sister metals are going in opposite directions. Zinc continues to climb, with prices in late January moving into the high 80¢/lb. range—about 7¢/lb. above late 1988 levels. Lead, on the other hand, has dropped 2¢/lb. over the same time span—to near 40¢/lb.—with much of the downward impetus stemming from mild weather which has adversely affected battery maker demand for the heavy metal.

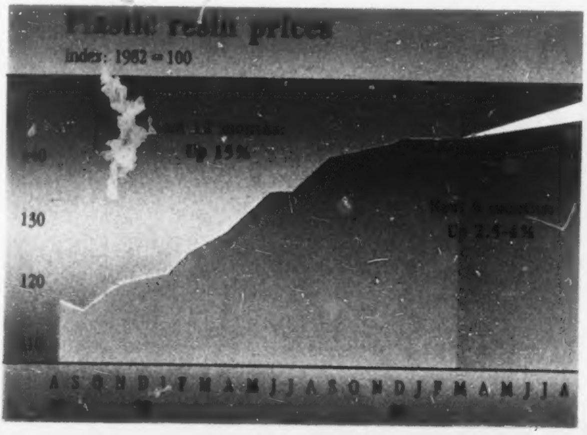
Plastics prices stabilizing

CURRENT SITUATION; Prices, which have been the big problem over the past year, are finally beginning to show signs of stabilizing. Boosts have just been announced by polyethylene (PE) producers, but several other commodity resins have turned a bit softer, with small declines reported for polypropylene (PP), polystyrene (PS) and polyvinyl chloride (PVC). There's little indication of another 1988, when averages jumped 15%.

DEMAND: All signs point to about a 4% increase in overall tonnage this year—just a shade under the near-5% advance estimated for 1988, but enough to push totals near $38 billion. All major thermoplastics should share in the 1989 gain—with PP's 6% tonnage increase leading the pack. Other projected advances: HDPE (5%), PS (4%), LDPE (3%), ABS (3%) and PVC (2%). Relatively good (above GNP) growth is also expected for the longer pull—**with advances continuing to average near 4% yearly into the 1990s.**

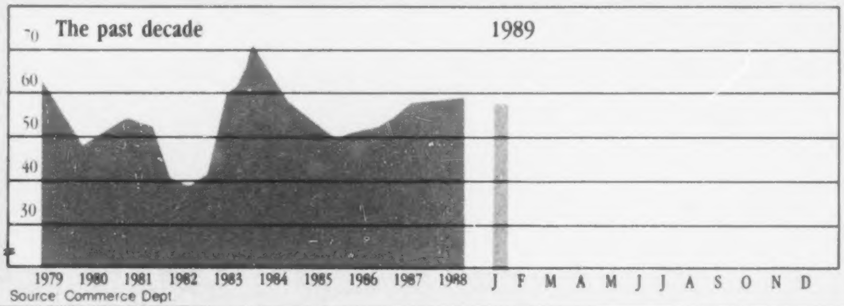
SUPPLY: The 1988 pinch is just about over. Plans call for an impressive 8-9% increase in production potential over the new year—with an almost-as-large advance already scheduled for 1990. Biggest chunks of new capacity this year will be in PP (nearly 13%) and PS (11%)—enough to make for substantial declines in these resins' operating rates—from 88-89% last year to 83-84% during the current 12-month period. Bigger-than-demand capacity boosts are also slated for LDPE (6%), HDPE (8-8.5%) and PVC (7%). Upshot: Modest 3-4 percentage point drops in these three resins' operating rates—to 91, 94 and 88%, respectively. Only ABS will buck this trend as unchanged capacity in the face of demand gains raises operating rates two percentage points (to 81%).

PRICE OUTLOOK: Best bet for the next six months: A 2.5-4% overall rise—with the year as a whole up by a slightly higher 6%. The increase—in the face of increasing supply—will in large part be fueled by higher feedstock costs. Not all resins will follow this pattern: PP, for example, could see some significant erosion by midyear as new capacity comes onstream. But any easiness in PE where 90%-plus operating rates are envisioned, will have to wait until 1990.



N.A.P.M. business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



Source: Commerce Dept.

KEY ECONOMIC TRENDS

Business upturn continues

Still no sign of letup in the now more than six-year-old business upturn. Virtually all broad-gauge economic barometers are now solidly in the plus column. Examples:

NAPM business barometer: The latest 58.1 reading (50 is neutral) is actually above the previous month and at the highest level since last summer.

New orders: Totals, as reported to the Commerce Department, are still rising—with the most recent figures (in current dollar terms) running a solid 9% ahead of a year earlier.

Business confidence: Sales expectations for the current quarter, based on a new Dun & Bradstreet survey of leading manufacturers, remain at historically high levels. An impressive 73% of queried outfits expect gains *vis a vis* a year ago while only 4% see the possibility of a decline.

The D&B findings also support a general feeling that inflationary prices are under control at the moment. More to the point: Only 43% of responding manufacturers say first quarter 1989 prices will be higher than a year ago. That's some three percentage points under levels reported three months ago when the same question was asked.

Coming back to new orders, economists are especially encouraged by the latest 3% increases in nondefense capital goods bookings. If nothing else, it suggests that plant and equipment buying is still in high gear.

This positive capital investment appraisal is also supported by a new Commerce Department survey which points to a 6% increase in 1989 outlays—not that much under the previous year's 10.4% spurt.

The foreign trade picture also indicates near-term buoyancy, as exports increase and imports continue to shrink. In any event, the net real import balance (imports less exports) has dropped a resounding 44% from 1986 peaks.

This trend, detailed in the chart at right, can't be underestimated. Other things being equal, the more this net real import figure drops, the more work there is for U.S. manufacturers—in supplying both domestic and foreign demands.

Even the construction sector seems to be holding up well in the face of rising interest rates. Thus contract awards, a lead indicator of actual building activity a few months down the pike, seem to have stabilized at fairly decent levels (see chart).

This construction buoyancy is widespread, with only office and other commercial projects continuing to disappoint. On the other hand, industrial projects remain a major source of strength. And even residential building is doing okay—though some falloff here has to be anticipated as mortgage rates continue to edge up.

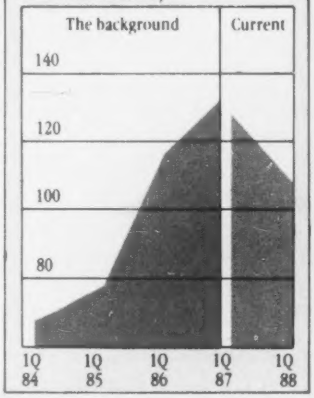
Perhaps the most positive sign of all—as far as near-term activity is concerned—is continuing consumer confidence. As the chart on the right indicates, this key barometer remains close to recent peaks.

Continued on page 14 . . .

Leading indicators

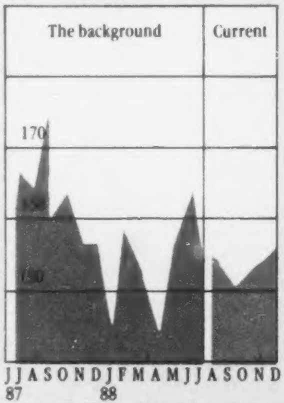
1. Net real imports

Bil. of 82$ seas. adj.



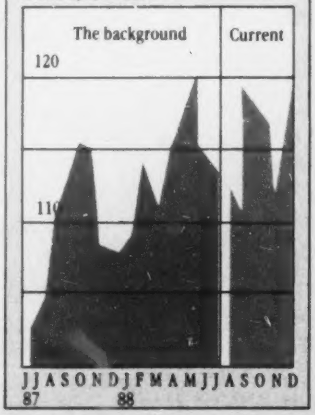
2. Construction awards

Current Index: 1982 = 100



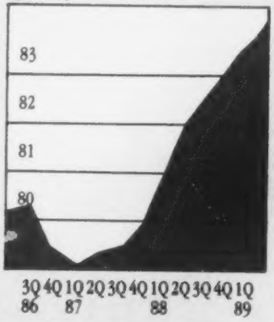
3. Consumer confidence

Index 1985 = 100



Operating rates level off

The overall trend
(percent)



Industry-by-industry
(% point change from year earlier)

Primary metals	+3.8
Fabricated metal products	+5.6
Non-elect. mchy.	+7.0
Elect. mchy.	+1.8
Automotive	+5.0
Instruments	+3.3
Textile mill products	−4.7
Paper & prod.	+0.3
Chemicals & prod.	+6.0
Petroleum prod.	−4.5
Rubber & plastics	−0.2
Utilities	−0.2

...Continued from page 13

Even autos look to be holding up well. Right now the betting is that 10.4 million units could clear the market over the new year—not that much under the 10.6 million sold in 1988.

To sum up, there's little or nothing to indicate any imminent slowdown in overall business activity. Backing this up is a recent survey of 38 top economists. Their finding: Real GNP should advance at a 3.6% annual rate over the first six months of the year—not all that different from last year's 3.9% average increase.

Operating rates approach 85%

Factory operating rates are approaching the critical 85% point—a level where bottlenecks have traditionally tended to appear.

But there's no need to push the panic button this time around. Rates are probably as high as they're going to go—at least on an overall basis—as industrial production gains slow down and new capacity comes onstream at a somewhat faster clip.

The plastics, chemicals and paper industries all plan on substantial additions to production potential over the next few years. And steel rates have already begun to ease.

How factory utilization numbers move could also impact on prices. It's no coincidence that the industrial sectors showing the biggest increases in factory utilization over the past year also exhibit some of the biggest inflation advances. Metals and chemicals are good examples.

Paper industry inflation can't be explained away by a rise in paper utilization rates. But that's only because rates here were already at peak levels last year and hence were physically unable to rise.

At the other end of the spectrum are big operating rate declines in petroleum products and textiles. This could be part of the reason why prices in both these areas have been on the shaky side over the past few quarters.

Where do we go from here? As suggested above, the operating rate peaks in most sectors have probably been reached. Any downslide should be extremely gentle—with the overall utilization figure edging down to only 83 by next fall.

That's a step in the right direction as far as availability and prices are concerned. But keep in mind this is nowhere near the 79% utilization rate low which prevailed as recently as 4Q 1986.

CURRENT PRICES

Industrials tick up

A slight uptick in industrial price increases over the past month is not to be taken too seriously. Look at changes over the past three months—a much more meaningful time period—and the increases remain quite modest, averaging out at only slightly above a 4% annual rate.

A good part of the latest month's spurt can be traced to the energy sector where the recently inked OPEC agreement helped propel crude petroleum prices up. This, in turn, sparked advances in residual fuel, jet and diesel fuels, home heating oil, natural gas and electric power.

These more than overwhelmed slight declines in liquid petroleum gas and gasoline. Moreover, the drop in the latter should be regarded as seasonal—as winter reduces driving and hence the demand for fuel.

Chemicals also helped in making for the latest overall rise—as both inorganics and organic types continued to advance. Also up were fertilizers and inedible fats and oils. On the other hand, plastic resins took a breather—actually falling a bit after the steady round of hikes of the recent past.

Paper products, too, continue to edge up—with new increases noted for both corrugated and fine papers. But with a lot of new capacity coming onstream, increases here should begin to decelerate in the quarters ahead.

One surprise: The failure of capital goods increases to speed up. They're still coming in at about a 3.5% annual rate—little changed from recent fall levels. About the only noteworthy boosts here occurred in transformers, motors and generators.

Moreover, the latter should be regarded as an aberration, as increases here over the past 12 months have come to only 2.5%. Most forecasts suggest continued restraint here in 1989—led by some actual declines in computers, fax machines and even copiers.

Construction material tags also remain under control. True, there were a few boosts—namely in wire and cable, fabricated structural metal products, and plywood. But these were effectively offset by easiness in gypsum products, plastic construction products and softwood lumber.

Somewhat more disturbing was the continued runup in metals. True, steel mill tags softened. But overall averages continued to rise, as copper, aluminum, and zinc all headed for higher ground.

This metal upturn may be ready to run out of steam. Copper, for example, is beginning to top out. And most analysts see a similar softening in most other nonferrous areas.

PROCUREMENT STATUS REPORT

Leadtimes mark time

The news on the procurement front remains basically upbeat. Thus despite still-increasing factory activity, leadtimes continue to mark time.

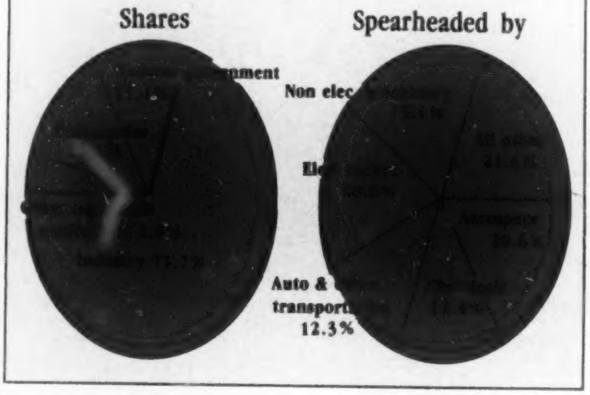
Purchasing World magazine's exclusive leadtime index remains squarely on the neutral 50 mark—indicating that stretchouts and shrinkages are balancing. And the NAPM delivery/slowdown measure tells pretty much the same story—with the index (54 at latest report) holding well under the 65-plus peaks of this past summer.

Also indicative that things are under control is the fact that 49% of surveyed NAPM respondents are ordering production materials 30 days or less in advance—the lowest such reading in months.

That's not to say that there aren't a few problem areas. Chloralkalis, for example, are somewhat hard to come by. Ditto, titanium dioxide, ferrovanadium and bearings. On the other hand, steel has eased considerably. So have plastic resins and semiconductors as new capacity begins to come onstream in both sectors.

Paper and paperboard supplies should also begin to ease. So should nonferrous metals—particularly copper, aluminum, zinc and lead; this could mean some price declines from current inflated levels—particularly in the copper area.

1989 Research & Development



In a nutshell, buyers are basically optimistic—expecting availability to slowly improve as the year wears on. But they're quick to add that this doesn't mean any dramatic turnaround.

One purchasing vice president sums it up: "Capacity increases are still far from overwhelming. Couple this with still-rising demand, and what we see ahead is a slow move toward better balance rather than a return to the glutted buyers' markets of a few years back."

R&D rises over 1988

Research and development outlays are heading for another good year, with totals expected to top the $129 billion mark—up some 3.4% from 1988 levels.

The new projections, supplied by the prestigious Battelle Institute, indicate that this will leave room for about a 2% real gain—since R&D inflation is put at less than 1.5%. The Columbus, Ohio-based firm adds that while this is under the average 3.6% real gain of the past decade, it should be enough to guarantee a continuing flow of product introductions and increased productivity.

In any case, firms seem to be getting more bang for their R&D bucks—generally by shortening the time needed to develop new products. One reason: Increased use of computers, particularly the use of simulation to replace time-consuming physical experimentation.

As in the past, industry rather than government or universities will be doing most of the work (see chart alongside). But a good deal of the funds for this industrial R&D will continue to come from Uncle Sam. (About one-third of all manufacturing research will be government funded.)

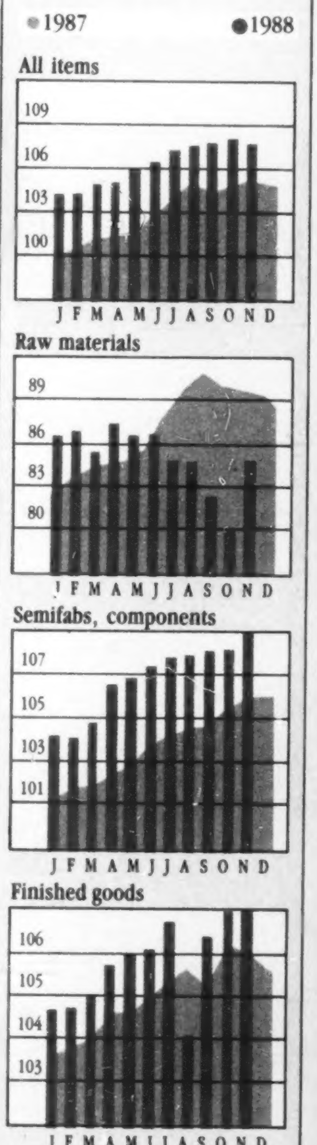
If you were in the number one R&D performer (aerospace), the government support is a lot larger than that. Battelle sees 82% of the $19.2 billion likely to be spent here in 1989 coming from Washington.

Other big 1989 spenders:

- Electrical machinery

Industrial prices

(Index: 1982 = 100)



Source: Bureau of Labor Statistics

and communications: Second only to aerospace as far as R&D is concerned, some $18.5 billion will be spent of which 42.8% will be government funded.

- Chemicals: At $11.5 billion total, with only 3.3% government funded.
- Non-electrical machinery: $12.1 billion, 13.8% of which will come from Uncle Sam.
- Automotive and other transportation: $11.4 billion—17.4% to be government funded.

The study also has further comments on all this government support. The small boost in defense spending will emphasize major weapon systems such as SDI and advanced aircraft. Energy funds, meantime, will continue to decline for both supply enhancement and conservation. On the other hand, look for more money for advanced materials and the superconducting supercollider.

This month's breakdown

Index: 1982 = 100

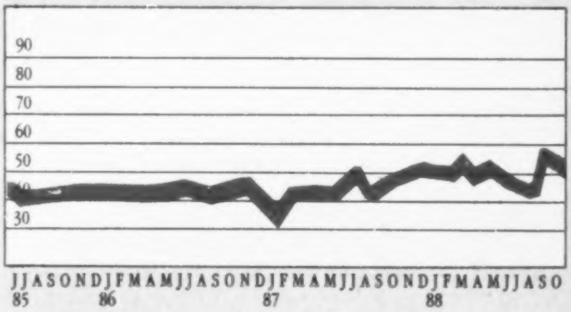
	Latest level (Dec)	% change from: Month ago	Year ago
Bearings	120.3	−0.4	11.0
Bolts, nuts, etc.	108.1	0.1	3.5
Chemicals, inorganic	104.6	0.6	8.8
Chemicals, organic	116.8	1.7	18.9
Concrete products	110.5	0.4	1.0
Corrugated cartons	112.0	0.4	6.2
Cutting tools, small	108.5	0.3	2.0
Electric lamps (bulbs)	122.5	0.3	0.9
Electronic components	118.8	0.4	2.7
Fans and blowers	115.8	0.5	4.1
Foundry and forge products	111.4	0.1	4.1
Fuel oil (residual)	39.8	9.0	−19.6
Furniture, commercial	126.4	0.4	5.3
Gasoline	55.5	−5.5	−3.3
Glass, flat	110.9	0.2	1.5
Glass containers	112.3	0.4	−0.2
Gypsum products	114.0	−1.0	−6.2
Hand tools	123.6	1.1	4.5
Hand tools, power driven	113.7	0.5	3.8
Industrial furnaces	121.9	−0.1	5.5
Integrating and measuring instruments	115.7	0.5	1.0
Internal combustion engines	112.5	0.2	2.6
Lubricating oil	106.6	0.1	7.9
Lumber millwork	123.1	0.2	3.0
Material handling equipment	109.1	0.0	3.4
Metal containers	109.9	−1.2	1.8
Metal mill shapes (nonferrous)	140.6	1.3	19.0
Metal tanks	107.4	0.5	9.3
Motors and generators	124.9	0.7	6.2
Motor trucks	129.8	−0.2	6.0
Office and store equipment	108.7	0.6	2.5
Paperboard	136.5	0.0	10.9
Paper boxes and shipping containers	126.9	0.5	6.6
Paper office supplies	118.8	0.4	8.6
Paint	114.6	0.2	5.3
Plastic resins	140.0	−0.2	18.9
Precision measuring tools	121.8	−0.2	4.4
Pumps and compressors	111.4	0.2	5.0
Refractories	115.4	0.2	3.1
Rubber belts and belting	107.9	−0.1	5.0
Scales and balances	106.7	0.0	2.4
Steel products	112.7	−0.4	6.4
Switchgear	114.7	0.4	4.1
Textiles, synthetic fibers	99.7	0.2	6.5
Textiles, gray fabrics	114.8	0.4	3.3
Tires and tubes	95.5	0.5	4.1
Transformers and power regulators	111.2	1.6	3.1
Welding equipment	119.0	0.8	6.3
Wire and cable	148.8	4.9	18.7

NAPM procurement trends

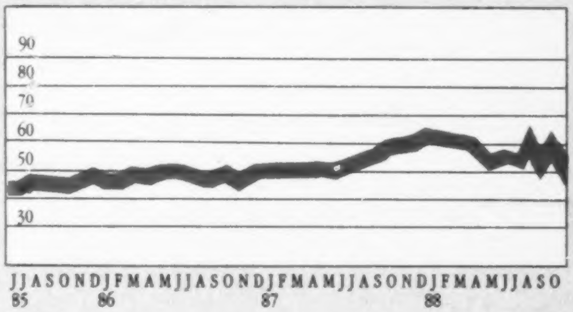
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

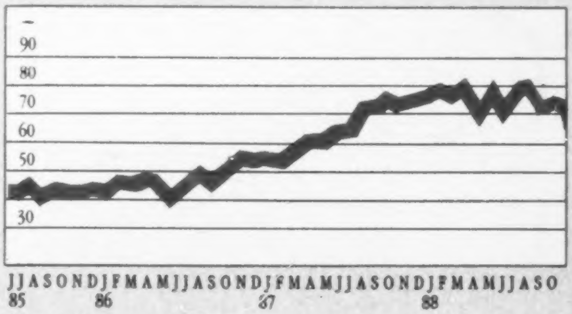
Inventories



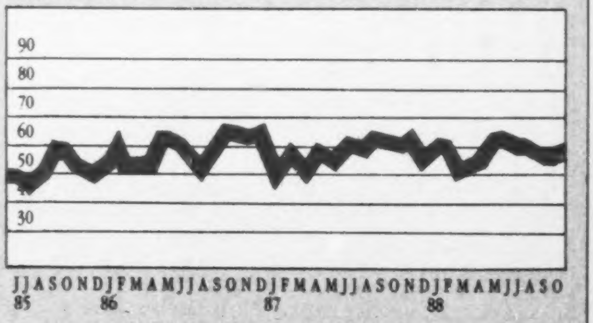
Speed of delivery



Prices

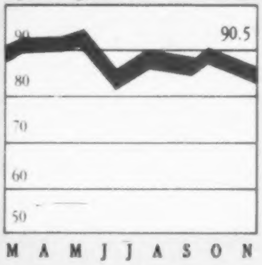


New orders

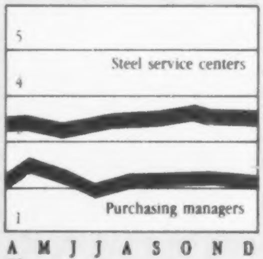


Steel

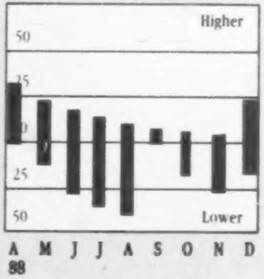
Operating rates



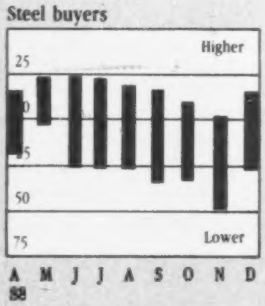
Inventories
(Months supply on hand)



Demand
(Percent of respondents)
Service centers incoming orders



Steel buyers



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

Steel slowdown? Not so

Earlier fears of a steel demand slowdown may gave been exaggerated. At least that's the message to be gleaned from new distributor and buyer surveys.

The latest Steel Service Center Institute (SSCI) report shows 24% of the respondents expecting a pickup in incoming orders over the next three months—significantly more than the 18% who still expect some erosion.

What makes this finding so encouraging is that it is a direct reversal of just one month earlier. At that time there were 36% who were anticipating near-term cutbacks in their business, far more than the 10% who were looking for gains at that time.

Results of the NAPM steel buyer survey also point to a demand turnaround—though the findings here aren't quite as dramatic as noted for service centers. Thus while the gap between those anticipating falls and those anticipating gains has narrowed (from 26 percentage points to only 13), declines still predominate.

Talks with both groups suggest the new optimism is based on a somewhat more rosy general economic outlook. Most business analysts now put first half 1989 GNP growth at a 3.5% annual rate—about one percentage point above earlier estimates.

This, in turn, is translating into an improved steel demand projection. One mill now estimates consumption over the first half at around 51 million tons—almost two million more than the figures reported over the last six months of 1988.

SSCI president Andrew G. Sharkey observes that even in the auto industry any easiness will be masked by a large increase in transplant production. He also sees an increase in process-related capital spending. On the other hand, steel demand from the construction and appliance industries is expected to be rather weak.

Sharkey also sees a continuing downtrend in steel inventories. Indeed, service center reductions already seem to be well under way, with SSCI member holdings led by a fall-off in carbon flat-rolled products—dropping for three consecutive months now.

Judging from survey responses, this trend will continue. Some 58% of those queried, for example, still feel stocks are too high—dwarfing the minuscule 5% who feel some inventory increases might be in order.

The distributor survey also lends credence to forecasts calling for a moderation in the steel price uptrend. When asked what their replacement costs would be six months from now, 65% said they would essentially be unchanged—the largest such figure in almost two years. And of the remaining 35%, 11% felt that tags could actually edge a bit lower.

Relatively stable prices, however, are not expected to set off any new wave of import competition. Sign of the times here: Less than one out of five service centers says foreign material is currently lower than domestic—and even then the advantage is put in the relatively low 6-10% range.

Steel buyers on the whole tend to agree with this foreign price assessment. Only 22% say overseas mills are currently offering prices under domestic levels. And, as in the case of distributors, they all dub the price break as "slight." These same steel buyers, responding to another question, continue to confirm reports that supplies have been easing. Only 39% of those queried, for example, report one or more problems—a marked change from last spring when 90% of the buyers were having difficulty in getting all the steel they needed when they needed it.

Import prices

(compared to domestic)

Steel buyers

ABOVE 60%
SAME 18%
SLIGHTLY BELOW 22%
SUBSTANTIALLY BELOW 0%

Service centers (carbon)
ABOVE 2%
SAME 80%
5-10% BELOW 18%
10-20% BELOW 0%
OVER 20% BELOW 0%

Import bargains scarcer, but still coming

While a softer dollar may have made overseas bargains a bit harder to find, imports are still coming in at a good clip. More important, they're likely to continue doing so over the new year.

So say the majority of purchasing managers responding to a new *PurchasingWorld* magazine nationwide survey. As one buyer put it "Imports have become part of our integrated supply line. And while totals won't be going up as they did a few years back, our 1989 incoming shipments should equal or even top last year's levels."

This import buoyancy in the face of the recent foreign price run-up is confirmed by official government figures. The value of foreign-made goods in the year recently ended topped the $450 billion mark—actually 6% ahead of 1987 levels.

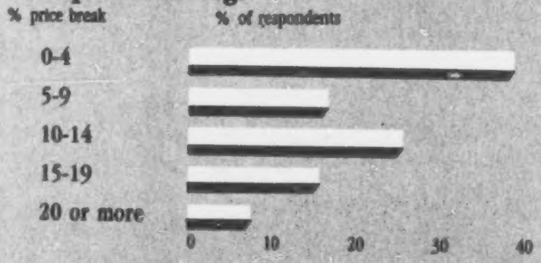
And it's not all due to one or two categories. As shown in the chart alongside, a wide range of industries now reports that 10% or more of their markets go to imports.

Imports: Three views

1. Current market penetration (% of new supply)

Cement	11½	Machine tools	55
Flat glass	8½	Pwr-driv. hand tools	31
Ceramic tile	35½	Const. mchy.	7
Sawmills	17	Pumps & eqpt.	10½
Hardwood plywood	35½	Air & gas comp.	20½
Pulp mills	26½	Refrig. & htg. eqpt.	9
Paper & board	13½	Farm mach.	24½
Petroleum & nat. gas	30½	Mining mchy.	13
Chemicals (cyclic crude)	20½	Food prod. mchy.	27
Synthetic rubber	10	Textile mchy.	56
Steel mill products	22	Paper ind. mchy.	24½
Refined copper	17	Fasteners	20
Lead	12	Valves & pipe fit.	14
Titanium	11	Bearings	19½
Slab zinc	67	Turbines & gens.	16
Eng. & opt. systems	13	Photo eqpt. & supp.	23½
Meas. & control inst.	8½	Radio & tv sets	59

2. Reported savings



3. 1989 volume change

No change 38%   Higher 31%   Lower 31%

Source: PurchasingWorld, U.S. Dept. of Commerce

Nor is that likely to change. For one, a leveling off in import price increases—now that the dollar seems to be stabilizing—should help sustain the current high incoming shipment levels.

Backing this up, the majority of survey respondents say they do not plan on any import retrenchment this year. There are a few who do contemplate some decline. But these are being offset by a similar percentage who feel they may actually boost their imports this year.

Most would agree that imports are not quite the bargains they once were. Survey respondents indicate that import tags are running about 6% ahead of a year ago—considerably more than the comparable increase in domestic tags.

Other key price findings of the just-completed *PW* study:

- **Price advantage:** Nearly two thirds of those questioned report that the domestic/overseas price gap has narrowed. About 45% now note price breaks of 10% or more—considerably fewer than a year ago when 55% of the respondents were experiencing savings of this magnitude.
- **Projected price changes:** While most raw materials—including metals, plastics, chemicals and paper—are expected to hold steady or rise only slightly, and more highly fabricated products should experience considerable advances. Bearings, for example, are mentioned by several PMs as a likely candidate for some big boosts.
- **Price guarantees:** Most buyers say they manage to get some price protection. Just over half report that they are able to lock in quotes for three months or longer—with a few managing freezes up to a year.

One surprising finding: Except for textiles and electronic components, not many are shifting to sources where the dollar has held up relatively well. Reason: Many are fearful such a switch could mean some deterioration in quality or service—and they're not willing to gamble when it comes to these critical issues.

Taking off on quality, PMs add that foreign products are now sometimes better than those offered by domestic vendors—and this is why they continue to lean toward imports.

But there are still other factors cited for going the import route. These include 1) multiple sourcing to guarantee an uninterrupted supply or bargaining leverage, 2) the technological leadership afforded by some foreign firms, 3) lack of availability from domestic sources and 4) company policy (including countertrade requirements).

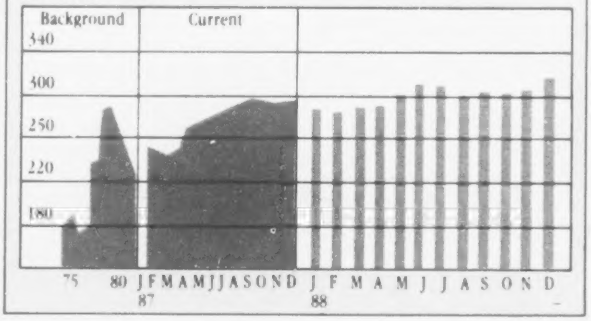
Last, there's the aggressive marketing of overseas sellers. As one buyer observes, "It's taken a long time for these people to get their foot in the lucrative U.S. market, and they're not about to give it up without a fight."

PW

Raw material price barometer

(Index 1967 = 100)

Last month 316.6
Month before 309.7
Year ago 293.1



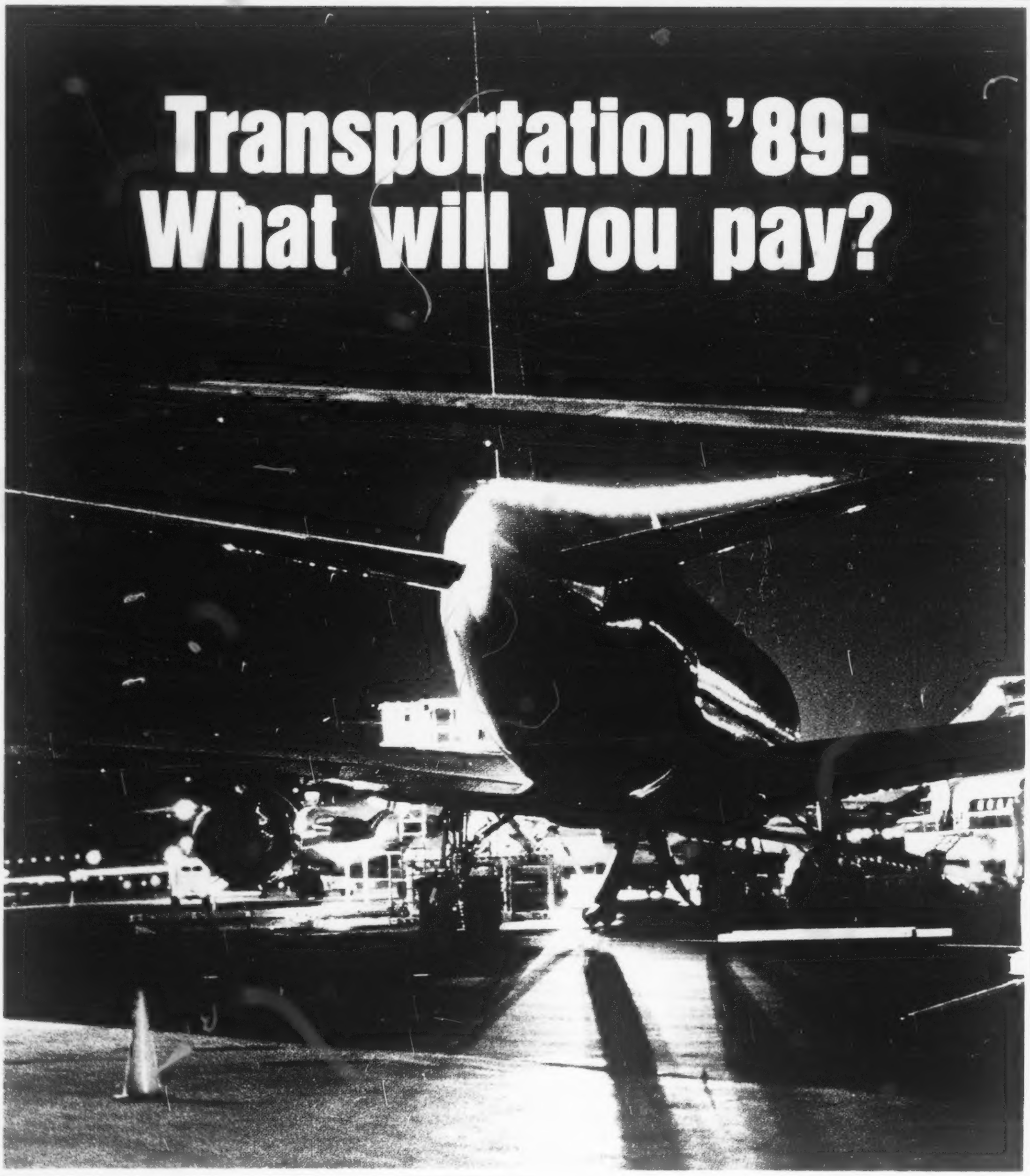
Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	16.50	16.50	16.50
Steel, bars, Pitts., cwt	16.50	16.50	16.50
Steel, bars, C.R., Pitts., cwt	19.45	19.45	19.45
Steel, plates, Pitts., cwt	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt	28.15	28.15	28.15
Steel, strip, C.R., Chi., cwt	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	1.130	1.075	.890
Antimony, N.Y., dealer, lb.	0.98	0.95	1.12
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.13	2.18	2.04
Brass, yellow, [sheet], lb	2.09	2.14	1.99
Cadmium, N.Y., dealer, lb.	8.45	7.40	3.00
Copper, electrolytic, wire bars, refd., lb.	1.50	1.55	1.40
Copper sheet, over 24 in., lb.	2.22	2.27	2.13
Lead, common, N.Y., lb.	.40	.40	.38
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.53
Mercury, 20 fl. lots, N.Y., fl.	280.00	275.00	345.00
Molybdenum, oxide, dealer, lb	3.46	3.41	3.03
Nickel, cathode, dealer, lb.	8.40	6.30	3.80
Platinum, dealer, oz.	520.00	593.00	500.00
Silver, N.Y., oz.	5.97	6.18	6.81
Tin, N.Y., dealer, lb.	3.44	3.42	3.20
Zinc, Prime West, East St. Louis, lb.	.80	.75	.45
Zinc, die casting alloy, No. 3, lb.	.865	.835	.505
PAPER			
Uncoated book #3 offset, ton	965.00	965.00	890.00
Watermarked bond, ton	1080.00	1080.00	985.00
Gummed sealing tape, carton	18.36	17.93	17.07
Grocery sacks, ton	460.00	460.00	435.00
Solid bleached paperboard, ton	730.00	730.00	650.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	380.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.280	.280	.274
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.18	1.18	1.24
Cotton middling, 1", N.Y., lb.	.537	.515	.600
Printcloth, 48", 80x80, N.Y., spot. yd.	.500	.500	.535
Army duck, 37", 13 oz., yd.	1.50	1.50	1.51
Blended printcloth, 64", 78x54, yd.	.70	.70	.80
20s combed yarns	1.80	1.80	2.00
Wool 64s, Staple, lb.	4.50	4.50	3.00
CHEMICALS			
Acrylonitrile, tanks, lb	.360	.360	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	125.00	91.00	75.00
Benzene, petroleum, tanks, Houston, gal	1.85	1.80	.85
Caustic soda, 76% solid, drums, carlots, cwt	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb	.55	.55	.55
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb	.106	.106	.106
Glycerine, synthetic, tanks, lb	.76	.76	.28
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.60	.60	.44
Naphthalene, crude, tanks, lb	.16	.16	.22
Phthalic anhydride, tanks, lb	.41	.35	.32
Polyethylene resin, low density liner film grade (market place), lb	.515	.515	.385
Polypropylene, homopolymer grade (market price), lb	.495	.505	.470
Polystyrene, general purpose grade (market price), lb	.59	.59	.55
Polyvinyl chloride, pipe grade (market price), lb	.44	.44	.38
Soda ash, 58%, light carlots, cwt	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.50	.47	.42
Sulfur, crude, ex-terminal, Tampa, Fla., lt	142.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb	.95	.95	.80
Xylene tanks, gal	1.40	1.30	.745
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	328.39	329.06	330.25
Lumber 2x2 pine, mbf, cl	321.41	319.52	322.10
Plywood, plyform, ¾", msf, cl	547.94	564.50	569.85
Plywood, ⅝", msf, cl	375.50	378.90	395.45
Cement, bulk, ton, tl	63.71	64.17	63.73
Sand, ton, cl	7.23	7.22	7.31
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.77	48.67	47.42
Crushed stone, 1½", ton, cl	6.68	6.75	8.26
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	86.72	92.28	N.A.
Reinforcing bars, whse base, per cwt	20.85	20.85	20.36
Asphalt paving AC-20	105.44	108.96	139.37
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	7.26	7.26	6.99
Concrete sewer pike, 24", prem. joint, per foot, cl	17.73	17.73	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	18.15	15.84	16.60
Diesel (reseller rack, Chi), gal.	.5175	.4700	N.A.
Fuel oil No. 2 (N.Y.), gal.	.5535	.4960	.5250
Fuel oil No. 2 (Gulf spot), gal.	.5300	.4575	N.A.
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	20.00	18.75	N.A.
Gasoline (reg lded NY), gal.	.5225	.4975	.4500
Gasoline (reg unlded NY), gal.	.4975	4725	.4375
Kerosene (reseller rack, Chi), gal.	.6075	.5180	N.A.
Propane (Mt. Belvieu, Tex), gal.	.2200	.2038	.2375
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	115.00	111.00	102.00
Steel, No. 1 hvy., dlvd., Chi., ton	114.00	106.00	100.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.10	1.23	1.13
Copper, No. 2, East, wholesale buy, dlvd., lb.	.985	.1080	.1035
Brass, red, East, wholesale buy, dlvd., lb.	1.060	1.190	1.090
Brass, yellow, East, wholesale buy, dlvd., lb.	.540	.525	.425
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.660	.615	.550
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.760	.720	.645
Zinc, old, East, wholesale buy, dlvd., lb.	.24	.24	.20
Lead, clean solids, East, wholesale buy, dlvd., lb.	.28	.27	.24
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	10.00	10.00	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	10.00
Old newspapers, Chi., ton	Nom.	Nom.	N.A.
Old white ledger, Chi., ton	85.00	75.00	N.A.

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

THE BUYER'S MAGAZINE MARCH 1989

Transportation '89: What will you pay?



- Steel forecast
- Quarterly Wharton transportation forecast
- Special bearings report
- PW's comprehensive software survey

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Many freight forwarders are taking on door-to-door responsibilities for shipments—and purchasing professionals can reap the benefits.

33 CF sorts out airfreight
CF AirFreight's Starbase in Indianapolis is a pretty interesting place—between midnight and 4 a.m. That's when the planes land and the freight gets sorted for final destination.

32 Freight rates give bad news and good
Wharton's quarterly transportation report, exclusive to *PurchasingWorld* magazine, shows that last year's rates were higher than expected, but 1989 will show more moderation.

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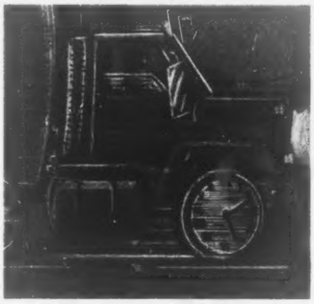
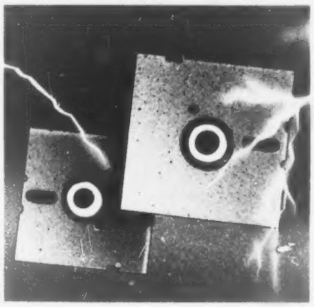
36 Life after JIT
Ford Motor Co. moved its suppliers, including Penn Fibre, into the JIT mode. And Bill Geis, president of Penn Fibre, is here to report it's one of the best things that's ever happened.

The Airfreight market wants more services—see how CFAirfreight meets those demands. ***page 33***



JIT has made a difference, not just in product quality, accuracy and on-time delivery, but in morale and improved employee relations as well. Find out how. ***page 36***



Planning is everything when purchasing a software package. Here are some hints and precautions to aid in making a choice. ***page 54***

40 Growth across the board
The U.S. Commerce Department has released its report on the industrial outlook for 1989, and almost all areas look to go upward.

46 A more competitive steel market
The nation's steel buyers are looking ahead to the effect of some key declines in demand for metal—and prices should level as a result.

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54 Don't set yourself up for a software disaster
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56 Guide to software solutions
Now that you know what you want in software, here's a list of suppliers to contact.

81 Your mission, should you accept it—part 2
Software columnist Gary Hersman completes his article on how to get better control of your purchasing function through the institution of better controls.

PurchasingWorld

System satisfies maintenance requirements

Said to provide for all maintenance requirements of all organizations in all locations is the "Compass 5" comprehensive, on-line, maintenance, purchasing and stores system. It includes modules for maintenance (planning, scheduling, equipment history, preventative maintenance, work order cost control and personnel accounting); stores (materials, inventory control, stock catalog and usage tracking); and purchasing (purchase requisition, purchase order generation and vendor analysis).

Exclusive system features include user-definable terms for maintenance items, up to 36 different sets of terminology (including language variations) in one system and multiple selection criteria searches for work orders, equipment and inventory items. A brochure describes the complete system. *Bonner & Moore Consulting Services.* **Circle 95**

Manufacturing game simulates real-life

An educational game, titled World Class, simulates actual manufacturing conditions and options, and recreates shop-floor operations with participants experiencing improved productivity as they play. The simulations demonstrate the benefits of such philosophies as continuous improvement, just-in-time, total quality control and flexible manufacturing. **Circle 104**

Free bar code design guide

Handy, comprehensive guide from Computype contains descriptions and diagrams showing size ratios of more than 12 elements that must be considered when designing your bar code label. A grid is provided as a guide for the design and an '800' number is offered in case you need help. You can mail your completed label design to Computype and receive a free, no-obligation need analysis. *Computype, Inc.* **Circle 105**

Written forms enter data directly into computer

Scriptwriter, a clipboard-sized writing surface captures handwritten data as it is written on a standard paper form, and stores it directly in its own computer memory in ASCII code. Corrections can be made by simply waiting over the error.

At day's end, Scriptwriter is plugged into the host computer, data is transferred directly, batteries are charged and the unit is ready for the next day's entries. *Data Entry Systems, Inc.* **Circle 106**

Corrosion-resistant alloy introduced

A new alloy, AL6XN®, has shown significant resistance to chloride ion attack and a variety of general corrosive environments, according to Allegheny Ludlum Steel.

Typically, stainless alloys have insufficient resistance to high chloride waters used for cooling purposes or brines used in the recovery of salt or in food processing procedures. A-L's research has shown that increased amounts of chromium, molybdenum and nitrogen can make stainless steel much more resistant.

Circle 93

Bar code module for PCs

A bar code module which interfaces with the company's already-existing purchasing software has been announced by American Tech, Inc. According to the company, Consolidate Glass in Galax, VA, was the first to implement the module, which allows portable DataLogic bar code readers to capture physical inventory and shipment transactions and load them directly into the purchasing package's inventory control module, reducing data entry time and improved accuracy. **Circle 94**

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by Robert S. Reichard, editor-in-chief

January prices above normal

Take the modest first quarter industrial price acceleration with two grains of salt.

True, advances have been somewhat more numerous over the past month or two. But this can be regarded as a seasonal effect—as suppliers use the beginning of the year to raise price levels for the entire 12-month period.

This can be backed up by NAPM Business Survey Committee statistics. Based on decades of past data, the group finds that the net number of purchasing executives socked with higher prices in January generally runs about 3.5% above normal. Also reassuring from the latest NAPM report the number of commodities reported as higher priced last month was significantly less than noted over the past year.

But reasons for continuing optimism on avoiding another price runup are based on a lot of other factors.

For one, manufacturing productivity continues to rise at a relatively respectable rate. Last year's advance came to 3.2%—and there's little to suggest any radical decrease for 1989. True, low unemployment may mean some rise in wage rates. But with unions more concerned with security than pay hikes; (not unlike Congress!) another close-to-3% productivity offset should be enough to keep unit labor increases to very modest proportions.

Also pointing to restraint on the cost side of the equation is the fact that many of last year's raw material price runups seem to be running out of steam—partly because 1988 was a year of "catchup" from earlier depressed years and partly because of new capacity that is beginning to come onstream in these critical areas. In any event, no one expects a repeat of last year's huge jumps in metals, plastic resins, chemicals and paper. Indeed, some weakness is beginning to crop up, most notably in steel and some of the big-volume plastic resins.

Market forces also suggest price restraint in the quarters immediately ahead. Slow GNP growth (2-3% for 1989 as a whole) when superimposed on stepped up capital investment (probably enough to boost capacity 3-4%) indicates that factory operating rates are about as high as they're going to go—and may show some fractional slippage by the third or fourth quarter of the year.

Also on the supply/demand front is the continuing pressure of import competition—which has persisted despite the sharp decline in the value of the dollar over the past few years. Point to keep in mind here: The world is still awash in excess capacity. This is true not only of commodity markets like oil, but also in goods which have been hit by a wave of relatively low-price, high-quality goods from the newly industrialized nations of Asia. The combination of this world glut and a more internationalized U.S. economy means strong constraints on new supplier price-boosting attempts.

Another reason why imports are still a potent factor: Not all foreign wage costs have moved up as much as some recent statistical studies would seem to suggest. Case in point: Recent Bureau of Labor Standards data finds that compensation costs in Japan's electronics, electrical equipment and auto industries are still well under those prevailing domestically.

Finally there's the Fed, which is more determined than ever to keep price increases within bounds. Witness the slow rise in interest rates—one which is expected to continue for at least another 3-6 months. If nothing else, this should take some of the demand/pull heat off prices.

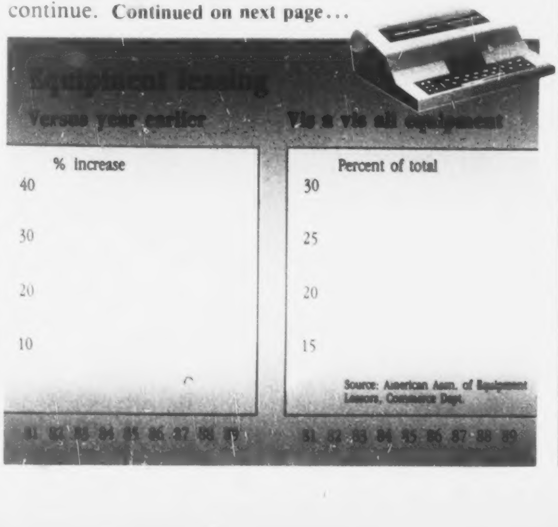
Leasing: The name of the game

Growth is still the name of the game as far as leasing business equipment is concerned.

Spurred by increases in capital investment, American industry, as of latest count, was planning to spend a record $116.7 billion on leasing in 1989—up 12% from 1988 totals. This follows closely on the heels of the 15% increase racked up last year (see chart).

To put this into proper perspective, some 31.5% of all business investment in equipment will be going the leasing route this year—up from 29.5% and 30.6% in 1987 and 1988, respectively. Equally significant, the new figure represents a near doubling from the 17.5% share reported less than a decade ago in 1980.

Also worth noting for buyers: Competition in the industry will remain keen among leasing firms and between leasing companies and other financial institutions. The trend away from tax-oriented finance leasing and toward operating leases will also continue. **Continued on next page...**



Source: American Assn. of Equipment Lessors, Commerce Dept.

These latter types (those where ownership of the leased property does not transfer to the lessee at the end of the lease term) will grow faster than other types of leases—with good gains seen in the aircraft, automotive, and high-tech equipment areas.

The long-term prognosis for leasing is also quite bullish—with the specific gains depending on the level and composition of equipment investment. Active lease markets should continue to develop and grow around transportation, medical, communications and high-technology equipment.

Office vacancy rates

(% end of year)

Real estate rates stabilize

Office vacancy rates have stabilized and are even showing signs of edging lower. But there's still plenty of competition for the rental dollar—especially in New York where one study finds it would take four years or more to absorb the existing supply. Some southwestern cities are also experiencing gluts. But there are exceptions—with vacancies at a premium in areas like Washington and downtown L.A. Meantime, availability remains virtually unchanged at 6% for industrial vacancies—with 8% and higher rates reported in Chicago, Denver, Dallas, Houston, Miami and Seattle.

Average phone bills to rise

The average overall bill should rise about 3.3% this year—a fraction under the 3.6% estimated 1988 advance. As for total dollar outlays, the gain is put at just under 6%. But this doesn't tell the whole story. Zero in on Integrated Services Digital Network (ISDN) which allows voice, data, text and video communications to travel simultaneously down the same transmission path—and the gain is likely to be several times bigger than suggested by the overall total.

Leaden prices for lead

The heavy metal is falling—with quotes now in the mid to upper 30s range—significantly under the recent 42¢/lb. peak. Also indicative of softness: Free World markets should be pretty much in balance this year—following last year's 100,000 ton deficit. And with demand expected to show only a 1% rise, prices could slip further by midyear—into the somewhat lower 30-35¢/lb. range.

Import prices rise again

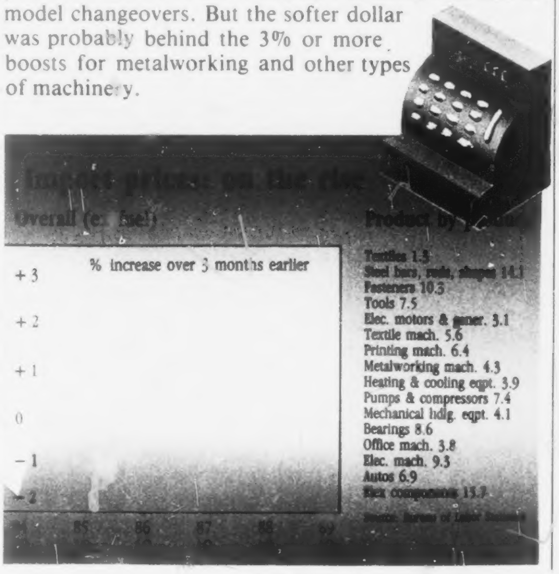
Import tags, after taking a temporary breather a few months ago, are again on the rise.

Latest Bureau of Labor Statistics data, for example, points to about a 2.4% advance (ex fuel) over the previous 3-month period. In part, this can be traced to good global demand, with another part reflecting the lingering impact of the dollar devaluation of the past few years.

About the only meaningful downturn occurred in fuel and related products. But here, too, there should be some upward moves when the next report is released—as OPEC production curtailments begin to firm the market.

The new study also compares 12-month advances over the past few years. The 1988 (ex fuel) boost of 6.9%, while high, is somewhat under the 8.2% and 9.1% increases of 1986 and 1987, respectively—a time when dollar devaluation was having it greatest impact.

- **Crude materials:** Quotes jumped a big 5.5%—bringing the overall 12-month advance to 17.0%. Biggest boosts over the latest quarter were in metal ores and scrap (up 19.2%).
- **Chemicals:** Increases averaged in the 2.3-2.4% range for the second quarter in a row—with the 12-month boost put at 10.8%. Latest hikes were again led by organics (up 3.5%). And inorganics, which had previously flattened out, posted their largest increase (2.4%) since this series was first published five years ago.
- **Intermediate manufactures:** A new 2.4% rise follows a relatively flat third quarter 1988. Increases were led by nonferrous metals (up 7.6%)—due to sharply higher zinc and copper quotes.
- **Machinery and transport equipment:** Averages rose 2.5% over the last three months—but only 5.5% for the year as a whole. A 2.9% increase in autos was due to model changeovers. But the softer dollar was probably behind the 3% or more boosts for metalworking and other types of machinery.



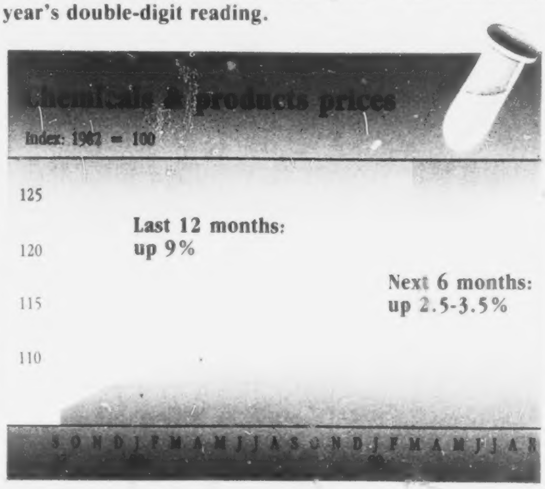
Chemicals' price rise slows

CURRENT SITUATION: Price increases are finally beginning to slow down a bit. A fair number of first quarter hikes have been posted, but on average they are a lot more restrained than in 1988 when 12-month advances (12/87-12/88) came to 19% for organics, a similar 19% for plastic resins and 9% for inorganics. Behind these increases were solid demand gains (up 8% in terms of industrial output) and a significant jump in operating rates (from 82.6% in 1987 to 86.4% last year).

DEMAND: Smaller 1989 GNP advances will result in a more modest increase in chemical output—probably something on the order of 5-6%. All segments of the industry are likely to share in the projected gains—though with some differentials in the rate of advance. Thus these forecasted increases: Plastic resins (6-7%), synthetic fibers (5-6%), organic chemicals (4.5%), chloralkalis (6%), agricultural chemicals (7%), paints (4.25%), drugs (8.5%) and soaps and toiletries (9-10%).

SUPPLY: Overall operating rates look to stabilize—with the Chemical Manufacturers Association pegging the 1989 average at 86.7%—not much changed from current levels. Part of this will reflect smaller demand gains, but another part stems from increased capital spending which during 1989 is expected to rise 15%. But capacity boosts will be uneven. Some of the biggest will be in plastics where an 8%-plus gain is seen. Debottlenecking should also make ethylene a little more available as the year wears on.

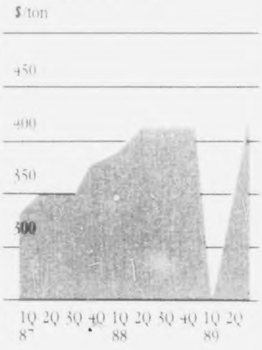
PRICE OUTLOOK: The trend is still up, but increases from here on in will be smaller and more spotty as supply/demand balance gradually improves. Costs don't look to be a problem—with industry analysts projecting only 4-5% advances in such key areas as labor, raw materials and energy. Upshot: **Figure only a modest 6% overall chemical price boost this year—well under last year's double-digit reading.**



Aluminum shows softness

Market ingot has slipped well under last year's $1.30/lb. peak. And all signs point to a further edging down to near the $1/lb. mark by early spring. Softness could persist even beyond that time as 300,000 tons of new Free World capacity permit inventories to build up after midyear. Normally lagging fabricated products, however, are still on the rise—with selected flat-rolled items raised anywhere from 10-25¢/lb.—though some discounting from the new higher levels has been reported.

Linerboard



Paper prices on edge

Prices continue to edge up—with a new $30/ton increase in linerboard bringing this bellwether product up into the $440/ton range. Nor is that the only item moving up. First quarter 1989 increases have also been posted in photocopy paper, solid bleached board, and softwood and hardwood market pulp. And low inventories could well force another hike in the latter sector this spring. The oft-postponed $30/ton boost in newsprint has been pushed forward again—and even the new April date looks shaky as new capacity comes onstream.

Tougher titanium tags

Figure on paying about 10% more on average for mill products this year. Blame it all on a combination of factors—rising raw material costs, higher demand (domestic consumption will top 23,200 tons this year) and producer attempts to recoup increased energy and other operating expenses. Part of the advance has already been announced, with second quarter shipments scheduled for about a 5% boost. Compounding the upward price pressure is a big jump in scrap—with dealer quotes on ferrotitanium virtually tripling over the past year.

Synthetic fiber tags stretch up

Rising costs and better market balance are continuing to push tags up. Rayon staple fibers, for example, are moving up for the third time in less than a year—with a new 10¢/lb. or 10% boost scheduled for early April. Acrylic fibers, meantime, are advancing 6¢/lb. now and an additional 4¢/lb. in May. And finally there's talk of another 7¢/lb. increase in polyester staple by April—pushing tags 14¢/lb.

PVC prices stabilizing

The resin has stabilized at around 44¢/lb.—though one producer is still quoting 42¢/lb. on pipe grade material. And little near-term change is anticipated as an 8% capacity increase (on top of last year's 6% jump) keeps markets competitive. Pipe extruders, on the other hand, are trying to boost prices in anticipation of a spring demand pickup. These latter increases are running in the 5-8% range—partially offsetting the even bigger price declines of this past fall.

Zinc doubles up

The trend is still up here—as tags on the plating and alloying metal move above the 85¢/lb. mark, double the 43¢/lb. low of last year. Also indicative of a strong market: Recently negotiated contracts that carry smaller volume discounts and tighter payment schedules. But prices are probably as high as they're going to go as buyers complain and demand begins to level off after last year's advance. Indeed, a decline to tolerable levels looks to be in the making by summer or fall when tags could be in the 70¢/lb. range.

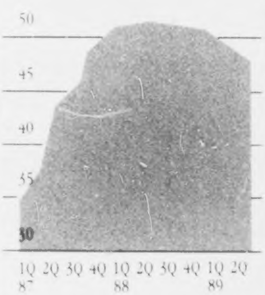
386s one-third off

Quotes on the recently introduced 1-megabit dynamic RAM are heading down as production lines are revved up. Best bet for 1989: A decline to around $8/unit—well under the average $14/unit price of last year. And by 1990, a further sharp drop to near $4.50/unit is anticipated. Elsewhere, Intel plans to cut its 80386SX microprocessor by a sharp 33% in April (to $89 from the previous $133 in 1000 volume quantities). Aim is to get a bigger slice of the personal computer market.

Polypropylene pricing down

The popular volume resin is beginning to soften. Latest transaction prices on big orders for the key homopolymer grade, for example, are now put in the 47-48¢/lb. range—with some material moving at even lower levels. This compares to a high of 52-53¢/lb. last summer. Another sign of weakness: Export sales at only 41-42¢/lb. Behind the easiness: Reduced demand—plus growing supplies. On the latter score, current plans call for a better-than-12% increase in production potential this year—double the expected demand gain.

Polypropylene
transaction price (¢/lb.)

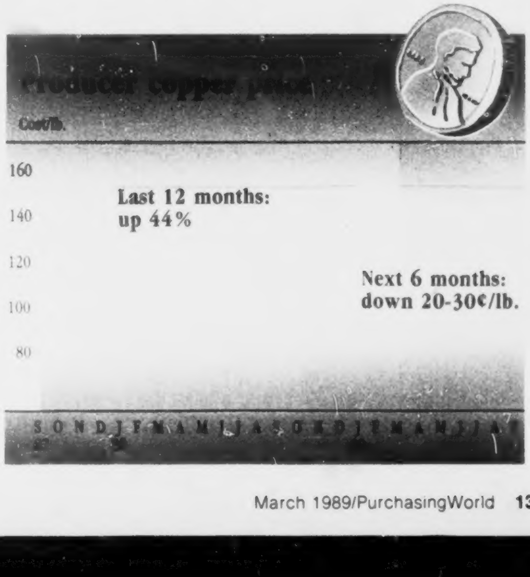


Copper: headed for normal levels?

CURRENT SITUATION; The worst of the copper squeeze may be over. There are now indications that 1989 could see a modest global surplus—after five consecutive years of demand exceeding new supply. Positive signs in this respect: more capacity and an improved outlook for labor peace in the South American mines. Meantime, prices are beginning to show some signs of peaking out. On the other hand, they have a long way to go before they reach more normal levels as **the latest readings remain an eye-opening 40% above year-ago levels.**

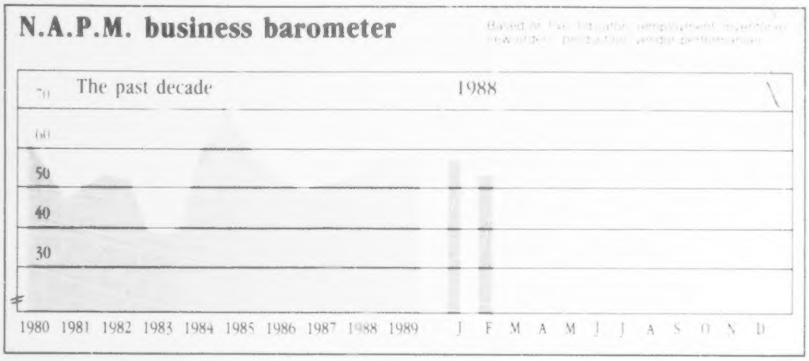
DEMAND: As much as a 2-3% decline in U.S. consumption is likely for the year as a whole because of reduced demand from the big construction and auto markets. Global use won't be all that buoyant either. Little more than a flat pattern should hold Free World chew-up to near 8.2 million tons. **Demand over the longer pull will be fairly restrained, too**—with global growth into the early 1990s expected to average out at only 1% per year. What's true globally will be equally applicable to the U.S. as few new growth areas surface. Total domestic demand is seen reaching only 2.42 million tons in 1993—not that much above the 2.31 million tons expected to clear the market this year.

SUPPLY: Things are beginning to look up—with global capacity expected to increase about 4.5% this year. Add in last year's even bigger advances, and total new potential will be up 9.5% in just two years. More specifically, additional metal is expected to come onstream in Portugal and New Guinea. Further production gains are also seen for the U.S.—as existing SX-EW facilities continue to expand, and several new projects are underway in Australia. Finally, Peru should bounce back from its strike-plagued 1988 performance. Upshot: The long stock drawdown will be reversed.



Last 12 months: up 44%

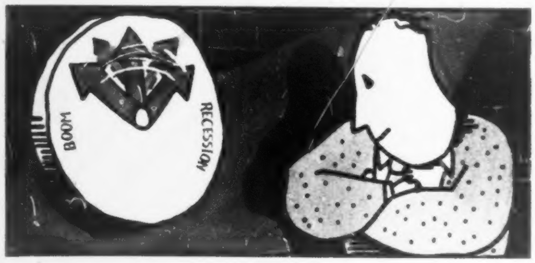
Next 6 months: down 20-30¢/lb.


N.A.P.M. business barometer

KEY ECONOMIC TRENDS

Economic growth still likely

Some modest deceleration may be in the cards—as the bellwether NAPM business barometer edges down a bit—from the mid to upper 50s range of recent months to around 53 at latest report.



But that's still above the neutral 50 level—so the economy is still likely to grow. Most economists are now talking in terms of a 2-3% annual rate of advance over the next few quarters—not that much under the 3.8% average advance for all of last year.

Some of the deceleration may be forced by moderately higher interest charges. Thus the prime lending rate is now up in the 10.5% range—about 1.75 percentage points above year-ago levels. (see chart)

While this is not enough to precipitate any widespread drop-off in demand, it does suggest some marginal fall-off. Construction, in particular, is being impacted—with overall activity here expected to be off several percentage points.

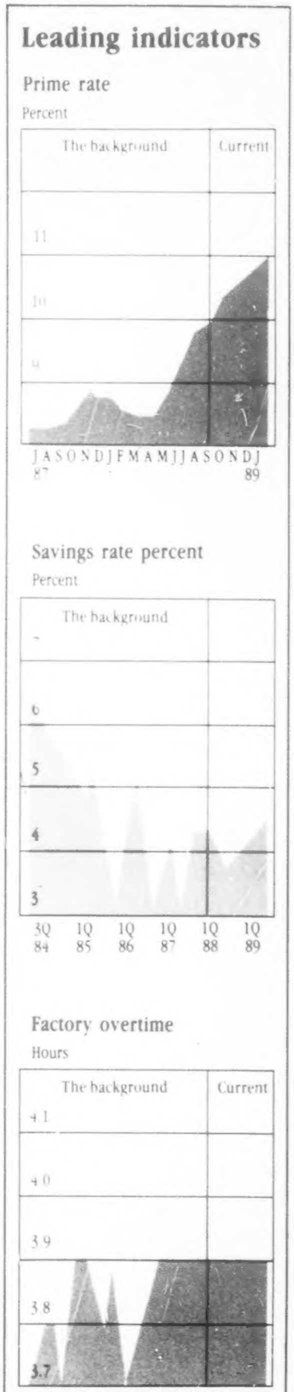
Consumer buying of autos may also slow down a bit. But at this stage of the game, deceleration will be quite small—leaving totals close to last year's 10.6 million unit level.

Moreover, consumers remain optimistic. One widely monitored confidence index, for example, has barely dropped—and it still matches the average posted for all of 1980. Conclusion: With confidence high and jobs plentiful, the average family is still likely to spend fairly liberally.

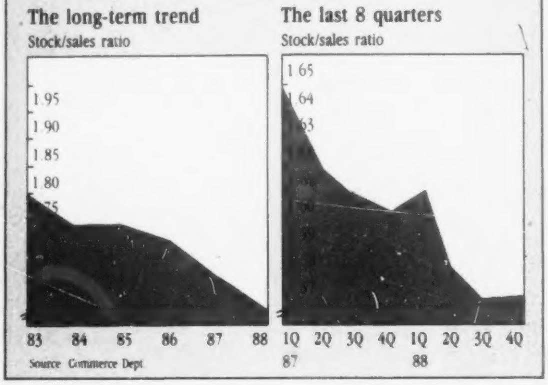
Nevertheless, some overall impact is probably inevitable. One sign of change here: The savings rate which in 1987 dropped to a low of 2.2%, is now above 4.5%. While this is still low by historical standards (see chart), it does indicate at least a modicum of caution on the part of John Q. Public.

But all the above will not be strong enough to abort the now-more-than-six-year-old business upturn. Thus these signs of offsetting strength:

- **Continuing strong demand for labor.** This is perhaps best typified by fairly high overtime levels (see chart). The fact that manufacturers are willing to pay extra for these additional hours of work attests to continuing pressure to meet burgeoning demand.
- **Low stock/sales ratios:** The overall factory ratio is at an all-time low—a pretty remarkable feat for this late stage of a business upturn. True, some auto stocks are


Leading indicators

Factory stocks stay slim



Source: Commerce Dept

high at the retail level, but continuing vehicle production means that Detroit is still optimistic about the upcoming spring months.

- **Persistent export gains:** The volume of outgoing goods and services in the last quarter of 1988 (in real terms) ran close to 13% ahead of a year earlier. That's not to say that some deceleration is likely. But any increase—even a small one—is good news.
- **Buoyant ordering:** Durable bookings reported by the nation's factories jumped by more than 6% over the last reported month. More important, the gain was widespread—with increases noted in transportation equipment, steel, nonferrous metals and electrical equipment.

Machine tools also spurted. And for all of 1988, orders in this key industry soared 70% to $3.59 billion.

Equally significant, the overall durable goods order total again outpaced comparable shipment levels. Result: Another advance in unfilled orders—assuring a continued strong production showing.

Inventories staying in shape

Factory inventories—contrary to experience in other recent business cycles—remain in surprisingly good shape.

Traditionally, stocks have begun to climb in the latter stages of an economic expansion. Not so this time around—as factory inventories (see chart) actually continue to edge lower.

At latest count, for example, factory stocks were the equivalent of 1.57 months' sales. That's actually under the 1.60 reading of just a year ago and a far cry from the 1.90 peak hit in 1982 just before the current upturn got underway.

In fact, the ratio is now at a historical low—equalled only once before in 1950 when the outbreak of the Korean War set off a sales spurt which cleaned out factory shelves.

And what goes for all factory inventories is equally applicable to purchased material stocks (the PM's bailiwick). Declines here have been just as impressive—indicating that buyers have been a major factor behind today's "keep'em lean" trend.

All this, say economists, can't be underestimated—for it just about rules out a traditional downturn which usually begins with manufacturers paring inventories. More to the point: Even if business gains slow, manufacturers have little excess to cut from their shelves.

Why today's low inventory levels? The trend toward just-in-time inventory management, of course, has been a major determinant. But over and above this, there are other important factors as well—including 1) today's high interest rates (and hence high carrying charges), 2) improved supplier-buyer cooperation and 3) the ready availability of most goods (thus obviating the need for extra purchases).

Where do we go from here? Some buyers tell of even lower stock/sales targets. But any further tightening up won't be easy. Indeed, most business analysts see a rather flat stocking pattern through the next few quarters—purchasing managers and others await clarification of demand patterns into late 1989 and early 1990.

CURRENT PRICES

Higher 1989 lists affect prices

Industrial producer price averages moved up about 1% over the past month. Much of this is probably seasonal as producers put higher 1989 lists into effect.

Indeed, some of the increases reflected in the overall average advance may be exaggerated. Certainly increases in both steel and plastic resins are suspect as buyers already begin to chip away at these announced increases.

Also the 3.5% hike in energy over the last 30-day period is unlikely to be repeated. Reason: Most of the boost reflects the delayed impact of recent OPEC production curtailments. In any event, now that oil output has leveled out, so will prices.

Meantime, the energy increases reported covered virtually all lines—with boosts reported in crude oil, jet fuel, diesel fuel, gasoline, home heating oil, natural gas, residual fuel and liquid petroleum gas. Only declining coal tags managed to buck the trend.

Also moving up were a wide range of component parts and equipment lines. In the component sector, for example, higher asking prices were noted for fasteners, bearings, metal stampings, auto parts, memory integrated circuits and electric motors and generators.

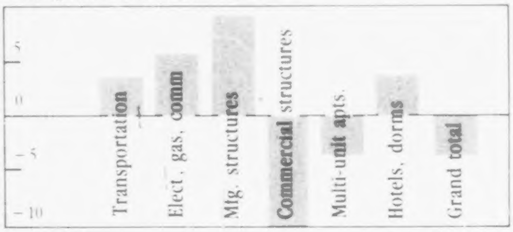
As for machinery, the upturn was also pretty broadly based—as advances hit construction machinery, machine tools, farm equipment, material handling equipment, aircraft, and transformers and power regulators. Only oil and gas field machinery and rail equipment—both declining—managed to buck the trend.

As for basic materials, the picture was more mixed. True, plastic resins advanced again, but as noted, there has been some market level erosion here. And in metals—aside from the questionable reported hikes in steel—only zinc and cadmium managed to advance. And these were offset by significant slippages in both copper and lead.

Conflicting moves are also seen in the construction material sector, where overall averages actually managed to show a fractional drop—as nonferrous wire and cable, concrete products, gypsum and glass all ended up lower. But offsetting this, to some extent, were advances in paint, plywood, brass fittings and switchgear.

Construction: Mixed bag

% change (1989-1988) in contract awards



Source: ENR/F.W. Dodge

Construction demands ease

Demand for building materials and a lot of other construction-oriented product lines (e.g. appliances) may be in for some modest declines. Reason: An unexpected drop in overall construction activity.

A new ENR/F.W. Dodge forecast of contract awards sees 1989 dollar totals slipping by about 4%. Allow for inflation, and the real volume of building may be down a few additional percentage points.

But the decline looks to be uneven. Indeed, a few sectors such as manufacturing buildings (mainly factories) could be in for a solid 9% advance. Then, too, heavy construction awards, prodded by infrastructure needs, are targeted for a 2% advance—reversing last year's 1% drop. Zero in on transportation activity (highways and bridges), and the gain is expected to be even higher—about 3%.

At the other end of the spectrum, a 15% falloff is projected for commercial structures—as the building of new office structures, stores and warehouses levels off. In the office building sector, the completion of large high-rise complexes in major cities will be taking its toll—pushing square footage down by nearly 20% this year.

It should be noted that these new contract award forecasts do not include single-family housing starts. But these are also expected to fall as mortgage rates approach the high 12% level by midyear.

Further confirmation of the relatively lackluster construction outlook comes from Uncle Sam. The government's estimated drop comes to less than 2% in real terms, but much of this is due to the fact that Washington figures 1) are in terms of outlays which lag contract award trends and 2) include still-growing repair and remodeling markets. Adjust for these factors and the picture is much the same.

PROCUREMENT STATUS REPORT

Leadtimes up slightly

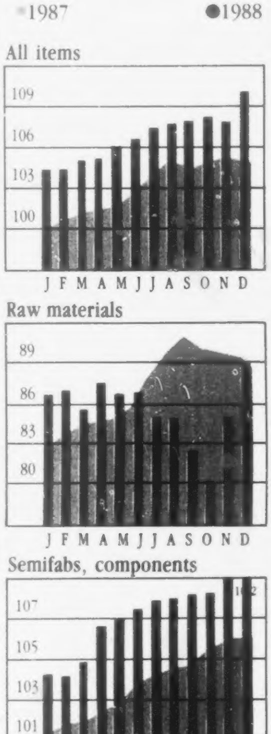
Leadtimes edged up a bit last month—with ***PurchasingWorld's*** exclusive diffusion index moving up to 51 (one percentage point above the neutral 50 level).

True, some of this could be seasonal—for vendor performance is generally poorest in March. The NAPM Business Survey Committee, for example, finds that the differential between those reporting slower and faster deliveries reaches its peak at this time of year.

But seasonals may not be the only factor. Thus the NAPM diffusion index for vendor performance (a yardstick which has the seasonal factor filtered out)

Industrial prices

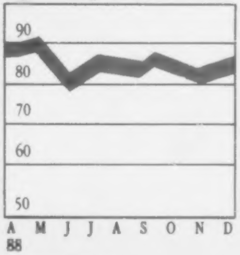
(Index: 1982 = 100)



Source: Bureau of Labor Statistics

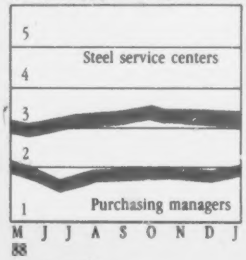
Steel

Operating rates



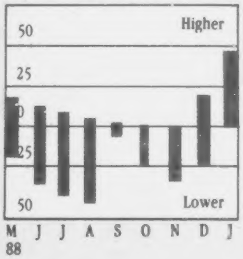
Inventories

(Months supply on hand)

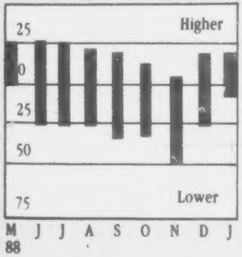


Demand

(Percent of respondents)



Steel buyers



Source: Steel Service Center Institute. NAPM Steel Buyers Committee

has also been inching ahead—reaching 54.0 over the past month.

One reason could be the faster-than-expected first quarter ordering pace. Earlier projections had called for a deceleration in the rate of overall growth. But now the slowdown has been pushed ahead to the latter half of the year.

In any event, a fair number of items remain on the NAPM's short supply list. These include steel, many nonferrous metals, plastic resins, paper, caustic soda, titanium dioxide and electronic DRAMs.

But it should be noted that many of these products may be ready to go off the list. New capacity is beginning to come onstream in such areas as nonferrous metals, plastic resins and DRAMs. Moreover, steel shortages, while undoubtedly being experienced, aren't nearly as prevalent as they were last year (see Steel Scene, this section).

Also indicative of better times ahead: More PMs are paring rather than adding to inventory levels. The diffusion index here (45.5 *versus* a norm of 50) is at its lowest point in nearly a year—despite the fact that production activity continues to rise.

Import prices

(compared to domestic)

Steel buyers

ABOVE 53%
SAME 34%
SLIGHTLY BELOW 13%
SUBSTANTIALLY BELOW 0%

Service centers (carbon)

ABOVE 4%
SAME 81%
5-10% BELOW 15%
10-20% BELOW 0%
OVER 20% BELOW 0%

Another reassuring procurement sign: Only 16% of queried PMs said they are currently ordering production materials 90 days or more in advance—down significantly from the 20-22% range prevailing over the previous three months.

STEEL SCENE

Brighter steel outlook seasonal?

The near-term steel demand outlook is a bit brighter these days. But how much of the improvement is seasonal and how much represents a real rise in consumption remains to be seen.

In any event, both buyers responding to the latest NAPM steel survey and distributors responding to the most recent Steel Service Center Institute (SSCI) query expect an increase in steel activity over the next three months. In the case of PMs, it represents a reversal of the previous 10 months, when those contemplating a pullback consistently outnumbered those figuring on an increase in their metal buys.

As for steel service centers, the 40% expecting an increase in incoming orders was the largest such number in nearly a year and a half. More important, it completely overshadows the minuscule 3% who feel business might decline.

The good start would seem to back up SSCI President Andrew Sharkey who predicts a fairly good year for his group—despite forecasts calling for a general deceleration in the overall rate of economic growth later on in the year. This steel executive, for example, puts total distributor shipments at near 23 million tons—just a shade under 1988's record 23.4 million ton level.

If correct, it would mean further service center penetration of the overall steel market, for as a companion steel story in this issue suggests, total domestic usage will be off by upwards of a million tons this year.

Both buyers and distributors, meantime, seem to be making some headway in reducing steel inventories. In the case of purchasing managers, for example, supply on hand has dropped under two months—bringing levels back to near year-earlier readings.

A second straight monthly decline was also reported by service centers—though here the supply on hand (just over 3.25 months) is still about a quarter of a month above levels prevailing a year earlier.

The decline in inventories, incidentally, is expected to continue as service centers and buyers prepare for the somewhat less buoyant late 1989 consumption pattern alluded to above. The big question, of course, is how much overall impact further inventory reduction will have on metal demand.

Then, too, demand may not be the only factor pointing to reduced holdings. Another is the gradually improving supply situation. Right now things are beginning to soften—easing pressure to lay in a little bit extra.

More to the point: The only problems—and they're relatively modest compared to last year's—are centered in plate and sheet.

While on the subject of price—the jury seems to be out on whether these as well as other price hikes will ever take hold. True, some 30% of distributors feel they will be paying more for their metal in six months. But only 3% see the increase as coming to over 5%. Moreover, a sizable 18% feel that average prices may well be lower by summer.

This month's breakdown

Index: 1982 = 100

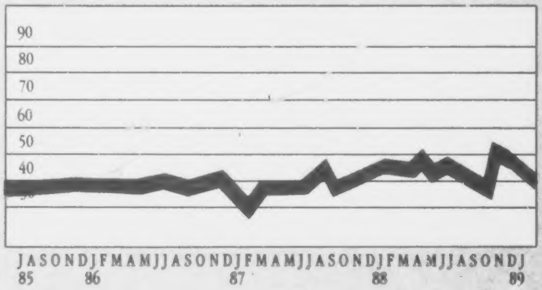
	Latest level (Jan)	% change from: Month ago	Year ago
Bearings	121.1	0.7	11.1
Bolts, nuts, etc.	109.7	1.5	4.6
Chemicals, inorganic	106.1	1.4	9.6
Chemicals, organic	119.9	2.7	20.4
Concrete products	110.4	−0.1	0.6
Corrugated cartons	111.9	−0.1	5.8
Cutting tools, small	108.8	0.3	2.2
Electric lamps (bulbs)	123.4	0.7	1.4
Electronic components	119.5	0.6	3.0
Fans and blowers	116.3	0.4	3.8
Foundry and forge products	112.3	0.8	4.4
Fuel oil (residual)	41.9	5.3	−7.7
Furniture, commercial	126.8	0.3	4.6
Gasoline	55.4	−0.2	3.0
Glass, flat	110.6	−0.3	2.4
Glass containers	112.3	0.0	0.0
Gypsum products	111.1	−2.5	−8.1
Hand tools	124.2	0.5	4.8
Hand tools, power driven	115.2	1.3	4.2
Industrial furnaces	122.1	0.2	3.8
Integrating and measuring instruments	117.7	1.7	2.4
Internal combustion engines	112.8	0.3	2.4
Lubricating oil	107.2	0.6	4.4
Lumber millwork	123.5	0.3	3.2
Material handling equipment	109.7	1.2	5.7
Metal containers	109.6	−0.3	1.2
Metal mill shapes (nonferrous)	140.3	−0.2	14.3
Metal tanks	107.9	0.5	9.1
Motors and generators	126.1	1.0	6.4
Motor trucks	131.0	0.9	5.8
Office and store equipment	108.4	−0.3	2.2
Paperboard	137.8	1.0	8.8
Paper boxes and shipping containers	127.1	0.2	6.2
Paper office supplies	119.7	0.8	8.0
Paint	115.0	1.2	6.0
Plastic resins	140.8	0.6	15.9
Precision measuring tools	121.8	0.0	4.2
Pumps and compressors	112.7	1.2	5.7
Refractories	116.4	0.9	3.4
Rubber belts and belting	108.5	0.6	5.8
Scales and balances	106.0	−0.7	1.1
Steel products	113.6	0.8	5.9
Switchgear	116.8	1.8	5.6
Textiles, synthetic fibers	100.2	0.5	6.1
Textiles, gray fabrics	115.3	0.4	3.1
Tires and tubes	95.9	0.4	3.8
Transformers and power regulators	112.7	1.3	4.9
Welding equipment	120.5	1.3	6.4
Wire and cable	147.3	−1.0	11.8

NAPM procurement trends

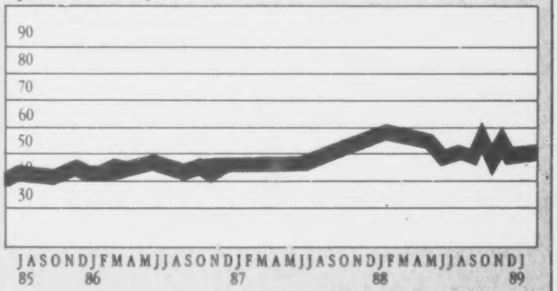
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

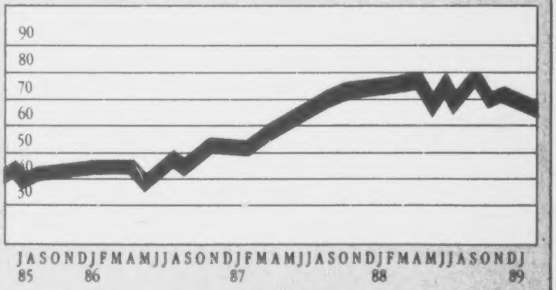
Inventories



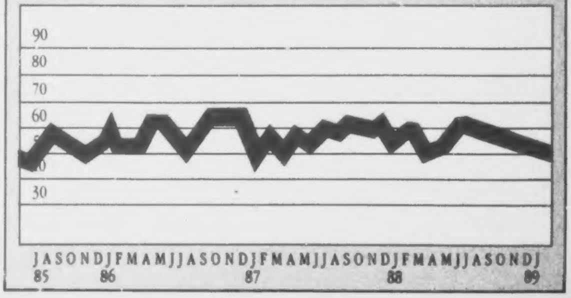
Speed of delivery



Prices



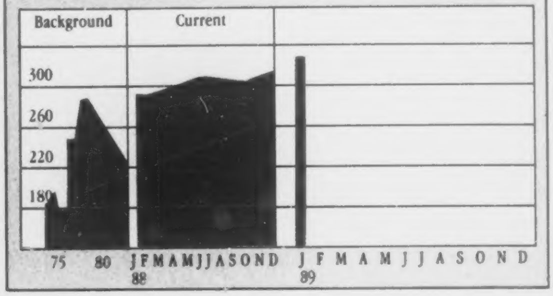
New orders



Raw material price barometer

(Index 1967 = 100)

Last month 323.9
Month before 317.2
Year ago 292.5



Latest spot market prices

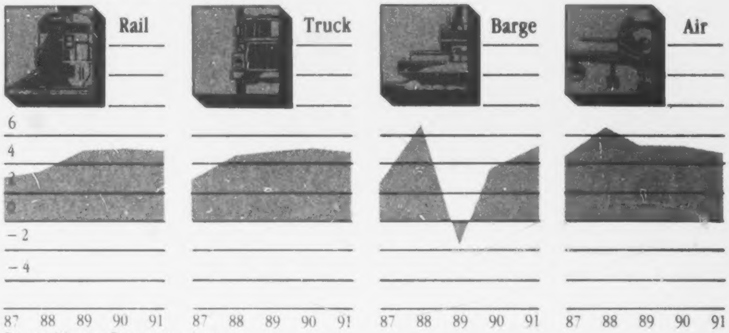
	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	16.50	16.50	16.50
Steel, bars, Pitts., cwt.	16.50	16.50	16.50
Steel, bars, C.R., Pitts., cwt.	19.45	19.45	19.45
Steel, plates, Pitts., cwt.	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt	29.65	28.15	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	1.05	1.13	.920
Antimony, N.Y., dealer, lb.	1.00	0.98	1.14
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.13	2.13	1.72
Brass, yellow, [sheet], lb.	2.09	2.09	1.67
Cadmium, N.Y., dealer, lb.	8.35	8.45	3.50
Copper, electrolytic, wire bars, refd., lb.	1.50	1.50	1.08
Copper sheet, over 24 in., lb.	2.22	2.22	1.81
Lead, common, N.Y., lb.	.37	.40	.37
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.53
Mercury, 20 fl. lots, N.Y., fl.	310.00	280.00	360.00
Molybdenum, oxide, dealer, lb.	3.48	3.46	3.15
Nickel, cathode, dealer, lb.	8.30	8.40	3.80
Platinum, dealer, oz.	530.00	520.00	445.00
Silver, N.Y., oz.	5.94	5.97	6.43
Tin, N.Y., dealer, lb.	3.50	3.44	3.15
Zinc, Prime West, East St. Louis, lb.	.870	.800	.460
Zinc, die casting alloy, No. 3, lb.	.900	.865	.515
PAPER			
Uncoated book #3 offset, ton	965.00	965.00	890.00
Watermarked bond, ton	1080.00	1080.00	985.00
Gummed sealing tape, carton	18.58	18.36	17.09
Grocery sacks, ton	460.00	460.00	435.00
Solid bleached paperboard, ton	730.00	730.00	650.00
Kraft linerboard, 42 lb., unbleached, ton	440.00	410.00	380.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.283	.280	.276
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.18	1.18	1.24
Cotton middling, 1", N.Y., lb.	.529	.537	.564
Printcloth, 48", 80x80, N.Y., spot. yd.	.500	.500	.535
Army duck, 37", 13 oz., yd.	1.50	1.50	1.51
Blended printcloth, 64", 78x54, yd.	.70	.70	.72
20s combed yarns	1.80	1.80	2.00
Wool 64s, Staple, lb.	4.50	4.50	3.87
CHEMICALS			
Acrylonitrile, tanks, lb.	.360	.360	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	125.00	125.00	75.00
Benzene, petroleum, tanks, Houston, gal.	1.87	1.85	.95
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.760	.760	.685
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.60	.60	.49
Naphthalene, crude, tanks, lb.	.16	.16	.22
Phthalic anhydride, tanks, lb.	.41	.41	.32
Polyethylene resin, low density liner film grade (market place), lb.	.515	.515	.425
Polypropylene, homopolymer grade (market price), lb.	.475	.495	.495
Polystyrene, general purpose grade (market price), lb.	.59	.59	.55
Polyvinyl chloride, pipe grade (market price), lb.	.44	.44	.39
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.500	.500	.460
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	142.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.950	.950	.800
Xylene tanks, gal.	1.40	1.40	.76
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	326.30	328.39	320.05
Lumber 2x2 pine, mbf, cl	311.06	321.41	322.55
Plywood, plyform, ¾", msf, cl	547.39	547.94	568.90
Plywood, ⅝", msf, cl	368.28	375.50	397.85
Cement, bulk, ton, tl	63.48	63.71	64.07
Sand, ton, cl	7.23	7.23	7.31
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.55	48.77	48.84
Crushed stone, 1½", ton, cl	6.71	6.68	8.34
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	86.72	86.72	N.A.
Reinforcing bars, whse base; per cwt	20.85	20.85	19.82
Asphalt paving AC-20	106.26	105.44	139.82
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	7.39	7.26	7.01
Concrete sewer pike, 24", prem. joint, per foot, cl	7.92	7.73	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	17.40	18.15	17.10
Diesel (reseller rack, Chi), gal.	.5175	.4700	N.A.
Fuel oil No. 2 (N.Y.), gal.	.5060	.5535	.4825
Fuel oil No. 2 (Gulf spot), gal.	.5300	.4575	N.A.
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	20.00	18.75	N.A.
Gasoline (reg lded NY), gal.	.4910	.5225	.4725
Gasoline (reg unlded NY), gal.	.4785	.4975	.4585
Kerosene (reseller rack, Chi), gal.	.6075	.5180	N.A.
Propane (Mt. Belvieu, Tex), gal.	.1925	.2200	.2375
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	122.00	115.00	124.00
Steel, No. 1 hvy., dlvd., Chi., ton	119.00	114.00	117.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.12	1.10	0.88
Copper, No. 2, East, wholesale buy, dlvd., lb.	.995	.985	.785
Brass, red, East, wholesale buy, dlvd., lb.	1.080	1.060	0.840
Brass, yellow, East, wholesale buy, dlvd., lb.	.540	.540	.415
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.670	.660	.575
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.760	.760	.660
Zinc, old, East, wholesale buy, dlvd., lb.	.240	.240	.200
Lead, clean solids, East, wholesale buy, dlvd., lb.	.270	.270	.240
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	10.00	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	10.00
Old newspapers, Chi., ton	Nom.	Nom.	N.A.
Old white ledger, Chi., ton	75.00	85.00	N.A.

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Freight rates give bad news and good

Freight cost outlook by mode

(percent increase over previous year)



Source: Wharton Econometric Forecasts

Bad news and good news from Wharton Econometrics' new freight rate rundown:

Somewhat on the disappointing side were higher rate increases for the year just ended. More specifically, the overall advance was adjusted upwards to 4.6%—more than a full percentage point above the estimate made just three months earlier (*PurchasingWorld*, 12/88, page 42).

On a rosier note, however, is the downgrading of this year's expected increase—from the 4.7% made just three months ago to only 4.1%.

Two reasons for last year's upward revision: 1) The freight-propelled increase in barge rates (6.6%) was greater than originally anticipated and 2) exceptionally strong demand helped push air tariffs up a hefty 7.4%—far above an earlier 5.6% projection.

Looking at the current year, overcapacity and healthy competition will continue to limit increases to something near the overall general inflation level. And even in 1990 and 1991, the overall advances are put in the 5.3% range.

But focusing on such averages hides some interesting trends. Air as well as water rate hikes will decelerate this year. On the other hand, increases for both truck and rail will be somewhat in excess of those posted in 1988.

Here's a more detailed mode-by-mode rundown prepared especially for *PW* by Wharton analysts:

- **Trucking:** Demand was quite strong last year, with up-to-date American Trucking Association figures pointing to an 8-9% tonnage advance. This increase—along with 1) hikes in truck user fees and taxes on state level and 2) rising wage rates—pushed the average freight bill up 4.5% for the year as a whole.

Concerns for price pressures in 1989 and 1990 focus on these same factors. Then, too, there's worry about an expected increase in the Federal tax on fuel which could hit truckers hard. Nevertheless, little rate acceleration is expected. Hikes, for example, should hit only 5.0% this year, 5.3% in 1990 and 5.1% in 1991.

- **Rail:** Ton miles rose by close to 6% last year. Behind this good advance: A big pickup in exports of both raw commodities and manufactured goods—plus the fact that imports of many of the goods carried in import containers on double-stack service also held up. However, intermodal competition from truckers held 1988 rate hikes to only 3.5%.

True, future rate advances will accelerate—but only moderately as 1) competition continues to be a major factor and 2) labor cost boosts remain modest.

Another possible moderating factor in rail rate hikes is the productivity adjustment being considered by the ICC for use in its Rail Cost Adjustment index which is used to determine permissable rail increases. Upshot: Rail freight tabs should rise by about 5% this year, then grow by 5.5% in both 1990 and 1991.

- **Air cargo:** Traffic was up dramatically last year—nearly 13% domestically and by over 20% internationally. Fueling these increases was the more widespread implementation of Just-In-Time inventory management. These healthy traffic gains, in turn, inevitably led to rate hikes, with the average advance last year put at 7.4%.

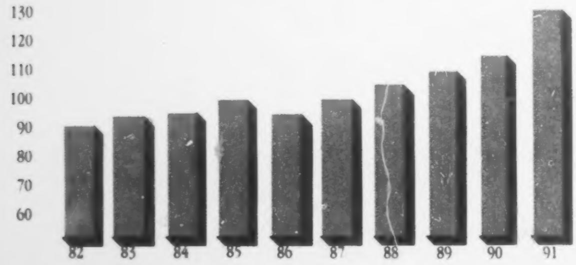
This year, inventory management should continue to boost air shipments. But growth in overall economic activity, as well as in exports, should slow somewhat.

- **Water:** Last year's big barge rate boosts have to be regarded as a one-shot deal. In any case, tariffs should drop back to more normal rates this year—with a 1.9% decline on an annual basis now anticipated.

As for the longer pull—figure on a gradual return to rising rates.

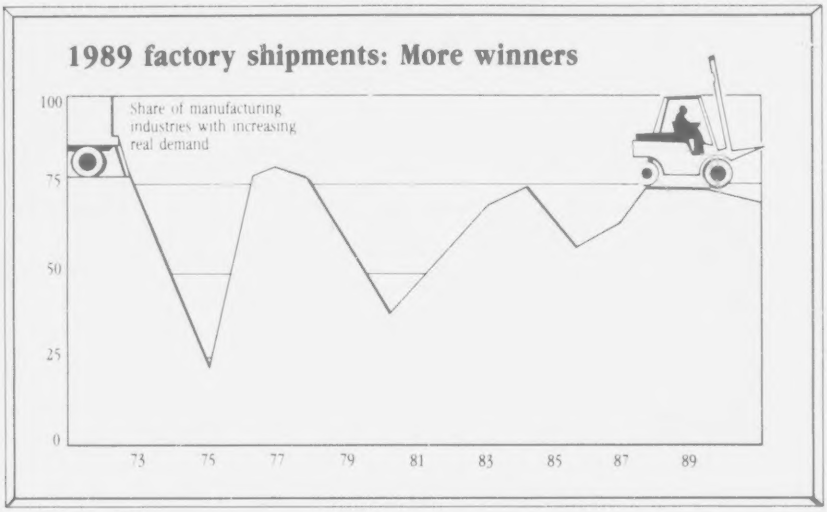
PurchasingWorld freight rate index

(1982 = 100)



INDEX	% CHANGE
1981	11.0
1982	2.0
1983	3.0
1984	0.6
1985	4.6
1986	− 1.2
1987	3.0
1988	4.6
1989	4.1
1990	5.3
1991	5.3

Growth across the board


1989 factory shipments: More winners

Uncle Sam's economists are bullish about the new year. Not only are the majority of the nation's manufacturing industries expected to rack up real gains this year, but inflationary pressures are being put in the tolerable range.

The buoyant economy is best summed up in the chart alongside which shows 74% of industries surveyed expected to show an increase in real shipments this year. That's not all that different from a year ago when a similar survey on the 1988 outlook called for increases in 79% of the industries.

Equally important, the average mean growth for U.S. manufacturing industries for which forecasts are made is expected to be 1.8% (measured in constant dollars). Moreover, half of those industries are seen growing by 2.2% or more.

Also worth noting: 40% of the industries are forecast to have record shipments in 1989. The non-durable goods industries will be the stronger performers—with 53% of them forecast to have record shipments, considerably more than the 31% in durable goods.

As for inflation, the new government study (1989 U.S. Industrial Outlook) is actually calling for a slight deceleration—at least as far as the all-inclusive GNP deflator is concerned. Thus the 3.7% projected advance here is actually under the 4.0% number given for the year just ended.

The new study doesn't give many individual price estimates. However, *PurchasingWorld* magazine analysts, by comparing the current and constant dollar shipment estimates given for a fair number of industries, have come up with some "ball park" implicit price projections.

Detailed in the table on page , they also suggest moderation—with a few declines thrown in for good measure. The only double-digit boosts are for oil (reflecting the new OPEC agreement to curtail production) and some fertilizers (reflecting a substantial increase in demand).

A more comprehensive demand rundown of expected 1989 changes, meantime, is shown on page —with some of the biggest (double-digit) real gains seen for machine tools and semiconductors. Detailed market discussions for many of these industries—culled from this annual tome which is available for $24 from the Superintendent of Documents, Washington D.C. 20402—follow:

- **Building materials:** Virtually all monitored items should show demand declines—reflecting a 1.6% drop-off in real construction. Some of the individual declines anticipated: Flat glass (4%), hydraulic cement (1.8%), brick and tile (2.8%), ready mix concrete (2.0%), gypsum products (2.0%), mineral wool (5.0%), fabricated structural metal (6.0%), softwood lumber (2.0%).
- **Paper and paperboard:** A 2.9% shipment gain is projected. More supplies are scheduled to come onstream to meet these current and projected increases. Specifically, more than six million tons are scheduled over the 1988-90 period—with much of this centered in draft paperboard, free-sheet paper and newsprint.
- **Corrugated boxes:** A 3% real demand gain is seen for 1989. Supplies should be adequate—though board mill utilization is expected to stay near last year's close-to-full-capacity levels. Long-term growth is put at near 2.5% a year.
- **Metal cans:** Only a fractional 0.3% price rise is anticipated for 1989. Demand, meantime, could be up about 3.6%—with much of the upward impetus coming from the soft drink market. On the material

score, steel (taking advantage of high-priced aluminum) could stage a modest comeback.

- **Glass containers:** Only a small 0.6% price rise is expected as demand falls by nearly 1%. Much of this loss will be due to switchovers to plastic containers which are expected to rise a substantial 7-8% this year.
- **Organic chemicals:** Constant dollar shipments will rise 3.1% in 1989 as the industry operates at maximum capacity to meet burgeoning demand for plastics. Because of tight supplies, prices of many individual products will remain strong and import volumes will stay high.
- **Chloralkalis:** Shipments look to increase about 6%. This, in turn, could push prices up about 1.5%. High operating rates also point to more imports as domestic suppliers are hard pressed to meet high demand.
- **Industrial gases:** Demand should level off—rising only 0.4% because the industries using them will show only modest gains. This demand slowdown—plus increasing capacity—will hold prices down, with a 2% decline possible.
- **Plastic resins:** A solid 4% demand increase is forecast—with the same rate of growth anticipated into the early 1990s. Price increases will slow, with actual boosts depending on the cost of such key petrochemical feedstocks as ethylene and styrene.
- **Hose and belting:** Output will grow 2% this year, as a function of greater auto demand. Buying from other end users such as construction and farm equipment will only be in the 1-2% range. Similar long-term advances are seen though v-belts should do better than flat belts.
- **Paints and coatings:** Prices could drop as much as 2%—despite continuing, albeit smaller, demand gains (2% this year *versus* 6.4% in 1988). Longer term, growth looks best for specialty and corrosion-resistant coatings.
- **Adhesives and sealants:** Despite a 6% demand gain, prices should hold relatively steady. Longer term, the industry faces stiff competition from Europe and Japan in the high-tech specialty adhesives area.
- **Steel mill products:** A 6% demand decline will stem from a drop-off in the construction and appliance sectors. Auto demand could be off a bit, too. Ditto, buying for inventory as stocks are pared. Prices, meantime, seem to be leveling off, with a 1% drop in overall averages a good possibility for 1989.
- **Ferrous castings:** Figure on a 1% increase in real shipments. Also the industry should recapture more business from overseas suppliers if the dollar holds at near last year's levels. Because of closings, operating rates should rise about 4%—to 80% for iron foundries and 60% for steel foundries.
- **Aluminum:** Prices are likely to hold onto a good part of their recent gains. Demand, sparked by strong container, packaging and transportation markets—could be up about 1%. Rising exports and falling imports should also have a plus effect on shipments. Longer term, supplies will be adequate into the early 1990s (Canada alone plans on a 50% expansion)—though prices will drop a bit from inflated 1988 readings.
- **Copper:** The construction pause will drop domestic demand by close to 2%—and world totals will rise by less than 1%. Superimpose this on a rising global production trend (up 2-3%)—and new supplies should exceed demand—relieving some of the price pressures on the world market.
- **Nickel:** A fall in U.S. consumption—combined with a 2% increase in global production—points to softening prices. On the whole, LME quotes are still expected to average well above $4/lb.
- **Nonferrous castings:** A better-than-5% decline in real shipments is expected—with environmental pressures making for the largest drops in castings made of lead and copper-based alloys containing lead. Smaller drops are seen for aluminum and zinc because of somewhat slower auto and industrial machinery production. The weaker dollar, meantime, will continue to make for a reduction in imports.
- **Machine tools:** Look for big 1989 real shipment gains in both the metal-cutting area (14%) and the

1989 prices: Uncle Sam's assessment

Industry %	change 89/88	Industry %	change 89/88
Lighting fixtures	3.1	Oil field mchy	3.2
Sawmills & planing mills	−1.8	Food product mchy	3.2
Hardwood & flooring	−1.1	Printing trade mchy	3.3
Glass containers	0.6	Transformers	2.4
Metal cans	0.3	Telecommunication	3.3
Crude oil	11.0	Electronic components	−1.3
Chloralkalis	1.6	Semiconductors	−3.4
Industrial gases	−1.8	Photo eqpt & supplies	0.4
Nitrogenous fertilizers	20.0	Autos	2.5
Synthetic rubber	2.1	Trucks	4.0
Paints	−1.9	Truck trailers	2.2
Adhesives & sealants	0.1	Auto stampings	0.5
Steel mill products	−0.9	Auto parts & accessories	1.2
Iron & steel foundries	0.9	Aerospace	4.6
Nonferrous foundries	2.9	Aircraft	4.8
Machine tools	5.0	Aircraft engine	5.1
Power driven hand tools	1.6	Skybuilding & repair	2.9
Pumps & pumping eqpt	1.2	Commercial printing	4.7
Air & gas compressors	1.7	Hotel rates	3.5
Mining mchy	1.7	Travel costs	4.5

Source: Commerce Dept. Most estimates calculated by comparing current and constant dollar shipment projections

metal-forming area (10%). Unit prices are also moving up by about 5%. But some of this is probably due to upgrading rather than pure price.

- **Power driven hand tools:** Unit prices are forecast to rise 1.6% this year. Real demand will also be up by about 3.4%. Cordless tools should be especially strong. But the chain saw market looks a bit soft.
- **Pumps and compressors:** Both sectors should show real demand gains of around 3%. Leading the advance will be purchases by the process industries, water and sewage projects, and power plants. Unit prices will creep up, too—1.2% in the pump area and 1.7% in the case of compressors.
- **Refrigeration and heating equipment:** A 1% decline in demand is possible. But this could be an understatement if renovation and replacement markets grow 2-3%. Also possible: A 10% jump in exports in response to new market initiatives and improved products.
- **Farm machinery:** A solid 5% increase in real shipments is shaping up for the year—as farmers make up for the near-zero advance of last year (caused by the long summer drought). Imports, however, remain a factor—accounting for close to 25% of the entire domestic market.
- **Mining equipment:** A 3% increase in real shipments is predicated on increased demand for state-of-the-art equipment from the extractive and mineral processing industries. Exports are also likely to remain strong—accounting for over 19% of total shipments this year. Prices should be up a modest 1.7%.
- **Industrial fasteners:** Good gains in specials (fasteners made to buyer specifications) will help make for a 3.5% overall advance in real terms. Most of the standard types will continue to be imported since U.S. manufacturers cannot usually match prices quoted by foreign producers. But import increases will now come more from newly industrialized countries than from Japan and Canada (the two largest overseas suppliers).
- **Valves and pipefittings:** A combination of gains in the processing industries, paper and export sectors will make for a 3.5% real 1989 increase in shipments. But imports—especially from Mexico—will be a market factor (accounting for near 14% of total domestic consumption).
- **Bearings:** Rising prices will be a problem for buyers as dumping charges against foreign producers help curtail import competition. As for demand—a 3% real increase is anticipated—pretty much in line with the expected growth in the overall economy.
- **Electrical equipment:** A flat demand year is seen—with only transformers managing to rack up a small (1.3%) gain. Switch gear could be off as much as 2%. As for prices—a 2.5% increase is possible in the transformer area.
- **Computers:** Current dollar shipments will rise about 10%, with real demand up somewhat more as prices edge lower. Buying will be brisk for advanced scientific and engineering models, work stations, and personal computers.
- **Semiconductors:** Prices will decline about 3.5% as supplies come back into better balance. In particular, prices for logic devices should drop significantly as capacity increases. Biggest declines (near 25%) are possible in tags for 32-bit MPUs. As for demand a solid 13-14% real boost seems to be shaping up.
- **Industrial and scientific instruments:** Real growth will be in the order of 6% this year—somewhat under last year's 11% jump. Measuring and control investments will show the smallest advance (4.5%).
- **Motor vehicles:** North American auto sales will fall only fractionally under last year's estimated 10.7 million units. Prices will be up about 2.5%.
- **Aerospace:** Increasing demand for commercial large transport aircraft will make for a 1% overall real increase—offsetting declines in the military sector. ***PW***

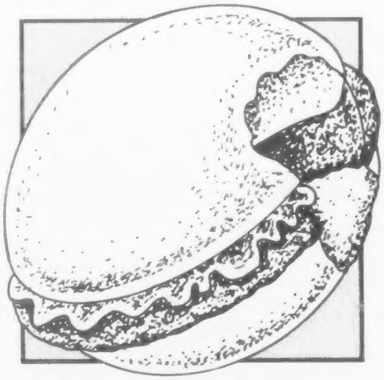
1989 Growth—Pretty much across the board

Industry %	real growth	Industry %	real growth
Lumber millwork	1.0	Construction mchy	3.0
Softwood plywood	−2.0	Mining mchy	3.0
Papermills	3.0	Metal-cutting machine tools	13.9
Folding paper boxes	1.1	Metal-forming machine tools	10.0
Corrugated boxes	3.0	Power driven hand tools	2.8
Chloralkalis	6.0	Paper industries mchy	13.0
Industrial gases	0.4	Pumps & eqpt	3.0
Plastic resins	4.0	Bearings	3.0
Paints	4.0	Air & gas compressors	3.1
Cyclic	3.2	Refrig & heating eqpt	−0.5
Adhesives & sealants	6.0	Carbuerators, pistons, etc.	−1.8
Tires & tubes	3.0	Transformers	1.3
Hose & belting	2.2	Switchgear & boards	−0.2
Flat glass	−4.0	Motors & generators	−0.2
Glass containers	−1.8	Industrial controls	0.1
Hydraulic cement	−1.8	Lighting fixtures	−1.8
Gypsum products	−2.0	Radio & TV sets	4.0
Steelmill products	−6.9	Telephone & telegraph eqpt	4.1
Primary copper	2.8	Communications eqpt	4.0
Nonferrous foundries	5.2	Semiconductors	13.4
Metal cans	3.5	Storage batteries	3.0
Fabricated structural metal	−6.0	Autos	−0.5
Screw machine products	5.5	Truck & bus bodies	3.3
Fasteners	3.5	Truck trailers	2.7
Valves & pipe fittings	3.5	Engineering & scientific instruments	5.0
Farm machinery	5.0	Process control instruments	3.0

Food cost pressure stays low

Upward pressure on the cost of living (and hence wage rates from food prices) is expected to remain relatively modest this year. Overall averages, according to a new Department of Agriculture forecast, call for a 3-5% boost in eating tabs—not all that different from the 4% increase racked up in 1988.

On the whole, prices of fruits and vegetables, cereal and bakery products, and eggs will contribute most to the overall boost. The latter, for example, is targeted for a hefty 15-20% rise.



On the other hand, meat and poultry boosts will be quite small—though beef will cost anywhere from 1-3% more. Also because of the trend toward eating more fish, this category could be up 4-7%.

The drought's effect on food is difficult to measure. But without the drought, Uncle Sam's analysts feel that meat production would be somewhat larger—and 1989 meat prices would be slightly lower than currently forecast. All in all, the drought probably added about 0.5% to food averages in 1988.

Eating out will also cost a bit more during the current year—about 4-6% *versus* 4% last year. Blame this on rising labor and operating costs.

The table below provides a more detailed rundown on what to expect on a commodity-by-commodity basis:

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Transport costs cooled by competition

Competitive pressures should again help hold most 1989 freight rate increases to modest proportions—with the all-modal average advance put around 3%.

The estimate, culled from a new *PurchasingWorld* magazine nationwide survey of traffic managers, suggests that the overall boost won't be all that different from 1988. The only big change: Less upward pressure from the barge sector as inland water levels return to normal.

The aggregate 3% increase is slightly under the 4.1% projection made by Wharton Econometrics (see accompanying story). But the slightly higher Wharton figure can probably be explained by the fact that Wharton data doesn't always pick up all of the unofficial discounting.

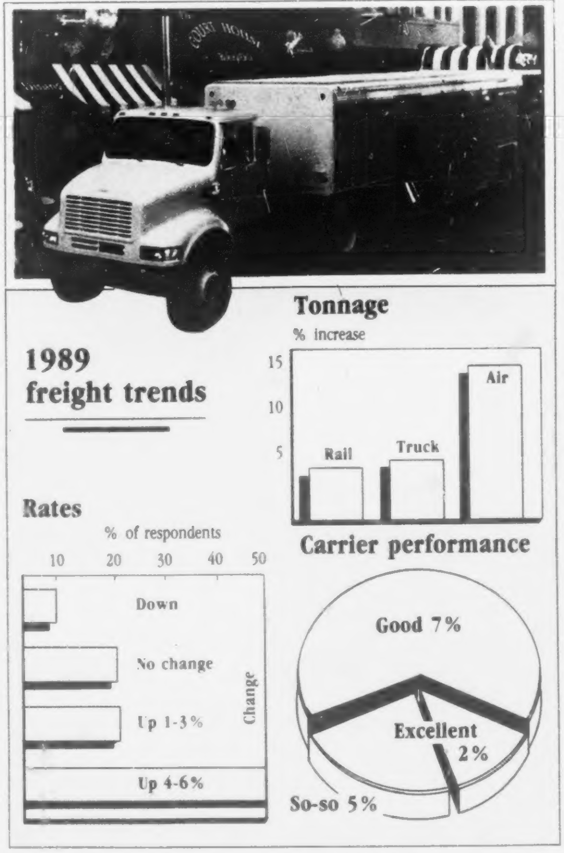
In any event, such discounting—while not quite as deep and widespread as last year—is still a factor to contend with. For example, one or two percentage points are expected to be chipped off a new 4.8% truck rate boost just now going into effect.

One traffic manager feels the end result will be an increase somewhere in the 2-3% range—with volume shippers faring best in keeping the new trucking hike to modest proportions.

Another freight buyer, citing anticipated deceleration in tonnage gains, feels the overall 1989 trucking increase after discounts will be in the 2% range. As he puts it: "In a slower growth environment, carriers just won't be able to walk away from freight as easily as they did last year."

The competitive market is also apparent in the air sector, where a proposed 5% increase on eastbound North Atlantic shipments is running into considerable flak.

Survey findings also suggest that freight discounts in some cases can run quite high. A few large volume shippers, for example, say they can get anywhere from 40-60% off published schedules. And they see little reason to expect any significant change over the current year.



Some of the new study's other key findings:

- **1989 rates:** Despite upward cost pressures, not one respondent sees overall rate increases exceeding 6%. On the other hand, the fact that only a handful expect to equal or do better than last year would seem to point to a more orderly market than has prevailed over the past few years.
- **Contractual agreements:** More shippers are taking this approach. And the savings can be substantial—with a few respondents putting it upwards of 50% as compared to official list levels.
- **Non-rate factors:** Carriers today are tending to offer a lot of "extra" services to help shippers. Some of these include 1) improved monitoring of shipments, 2) arrangements for door-to-door transportation regardless of the number of individual modes used and 3) helping with customs paper work where imports and exports are concerned.
- **Carrier performance:** About one out of every five is concerned about damaged shipments. But aside from this, the consensus is that carriers are doing a fairly good job. Some 70% rate performance as "good," with an additional 20% dubbing it as "excellent."
- **1989 volume:** Most traffic managers say tonnage advances will be somewhat under those of last year—primarily because GNP growth is expected to be slightly more restrained. On the truck front, most estimates fall in the 3-5% range—well under last year's big 8% tonnage gain.

Rail increases, too should be somewhat smaller—for several reasons: For one, barges will regain some of their lost business. Also international trade gains will be harder to come by. *PW* respondents put the overall rail tonnage increase in the 3% range—about half that of last year. And even this is larger than the 1% or so advance projected by Commerce Department analysts.

As for airlines, continuing big gains in freight are forecast—with totals again expected to duplicate last year's double-digit increases. On the other hand, there should be enough space to go around as cargo capacity continues to exceed demand. And this, say transportation buyers, should keep a lid on any big new rate hikes in this sector. ***PW***

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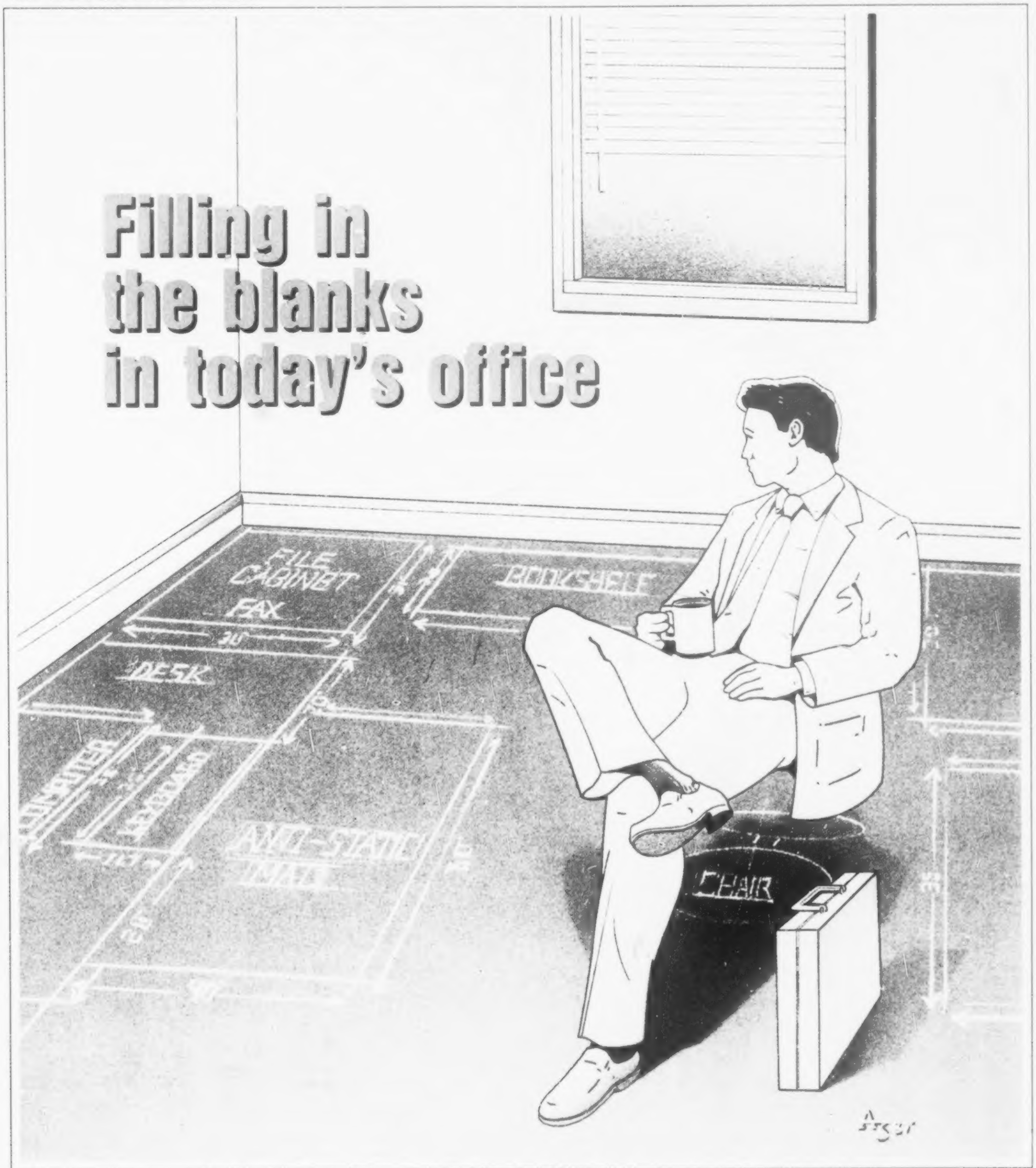
THE BUYER'S MAGAZINE

APRIL 1989



Filling in the blanks in today's office

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EDI: Real progress? • Meet the NAPM president

PW's Crystal Ball contest: The winners

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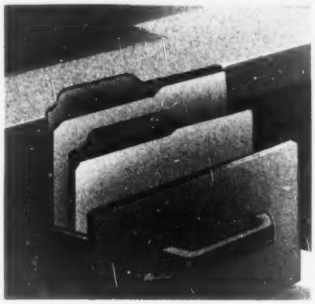

PW editors explore the world of office purchasing, prices and suppliers as well as the future. **page 24**

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PurchasingWorld

Jorgensen makes a big move into the South

One of the nation's most diversified metal service center organizations has recently made a strong move into the Southern market by establishing a fully staffed sales and service facility in Charlotte, NC to serve the Carolinas and Tennessee.

"It is time that we increased our penetration into both the Carolinas and Tennessee," said John W. Jorgensen, the company president. "We have fully stocked service centers in 23 major markets throughout the nation; the rapidly growing industrial community here in the Southeast represents to us a very natural expansion opportunity—we're here to stay." Reach the new facility by calling (800) 365-5454, or FAX 704-523-3346.

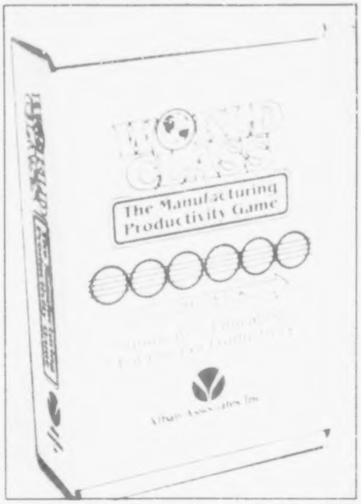
Load-matching network system for shippers

"Truck-Load" is a computerized service, endorsed by the American Trucking Association, which instantly matches shippers and motor carriers nationwide. The Forsyte Companies, Inc., offers a brochure that describes this matching network system which collects and organizes essential information on loads available from shippers nationwide and makes it instantly available to qualified motor carrier members through a computerized data base. **Circle 78**

International EDI directory goes to press

Soon to be published is the first international EDI directory which includes more than 5,000 listings, representing more than 90% of active EDI users.

The directory, "Who's Who and What's What in Electronic Data Interchange," combines the data bases of Euromatica, S.A., Belgium, and EDI, spread the word!, Dallas. The new book will offer listings of Canadian, European and American EDI users. **Circle 261**



Manufacturing game simulates real-life

An educational game, titled World Class, simulates actual manufacturing conditions and options, and re-creates shop-floor operations with participants experiencing improved productivity as they play. The simulations demonstrate the benefits of such philosophies as continuous improvement, just-in-time, total quality control.

Also covered in the game are bottleneck control, work-in-process reduction, material pull-signals, synchronized scheduling, and utilization of capacity. *Alban Associates.* **Circle 104**

Written forms enter data directly into computer without data entry function

Scriptwriter, a clipboard-sized writing surface captures handwritten data as it is written on a standard paper form, and stores it directly in its own computer memory in ASCII code. Corrections can be made by simply writing over the error.

At day's end, Scriptwriter is plugged into the host computer, data is transferred directly, batteries are charged and the unit is ready for the next day's entries. *Data Entry Systems, Inc.* **Circle 106**

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by Robert S. Reichard, editor-in-chief

Inflationary pressure talk persists

Talk of rising inflationary pressures persists as the economy continues into its seventh straight year of advance.

Behind some of the fears: A somewhat higher wage rate increase pattern. Other pressures generally cited include 1) capacity restraints in some industries, 2) increases in the prices of many imported goods (a result of the dollar's fall over the past few years), and 3) increases in the prices of domestic goods that compete with imports.

But some of these worries may be overdone. Take pay increases—sure, they're bigger than last year, but not really that much. The latest available figures in the bellwether manufacturing sector show factory unit labor costs running less than 1.5% above a year earlier—hardly a portent of runaway inflation.

Moreover, there are a few signs that this labor picture is about to change significantly. Clearly today's increasingly competitive environment is putting pressure on corporations to hold costs down. And as for workers hurt by mergers, acquisitions and restructurings, they seem to still be concentrating on job security rather than dollar-and-cents pay boosts.

Another factor that should allay inflation anxieties is the increasing likelihood of decelerating GNP and industrial production advances. Factory output is projected to increase at only a 2-2.5% annual rate after midyear—a far cry from the 7% rate reported as recently as the third quarter of last year.

Point to keep in mind: Demand gains will be decelerating at the same time that capacity increases will be accelerating. Result: Things won't be nearly as tight as they were last year, on an overall basis. Put another way, demand/pull market pressures will be easing.

Even the increase in import prices alluded to above may be running out of steam as the dollar finally begins to stabilize. The big 7% advance in import tags (excluding fuel) of last year will not be repeated. And this is bound to have a restraining effect on domestically produced goods.

The food cost runup engendered by last year's drought is also beginning to slow. True, some impact is still filtering down to the supermarket level. But the 7% cost-of-living rate of increase in one recent month has to be regarded as an aberration, not unlikely to be repeated soon.

Worth noting in this respect: The prestigious National Association of Business Economists is now talking in terms of a 4.7% increase in the consumer price index this year—a bit under the 5% projection made last November.

Continued on next page...

No sharp inflation rise

Analysts at DRI aren't buying all that talk about a sharp stepup in inflation. There will be some acceleration—but it will be only one percentage point this year in the industrial sphere (to 4.6%)—with next year's pace expected to quicken by about another half a point.

But individual product lines (detailed in the chart below) could vary significantly. A few examples:

- **Steel:** There's little possibility for any major increases in either shipments or prices.
- **Nonferrous metals:** Recent copper peaks will give way to declines but they won't be enough to drop 1989 averages under 1988 levels.
- **Industrial chemicals:** Slow price deceleration this year (9.9% price increase *versus* 11.9% in 1988) will become more pronounced in 1990 when tags will rise by only 4.4%.
- **Machinery and equipment:** Slow acceleration is the order of the day here—with tags rising 4.1%

Price changes through 1990

(% change from previous year)

Product line	1988	1989	1990
Raw materials, energy			
Crude items (nonfuel, nonfood)	− 4.1	− 1.1	2.8
Supplies for manufacturing	4.4	4.9	4.5
Electric power	0.9	3.4	2.4
Lube oils	6.5	4.1	4.3
Industrial chemicals	11.9	9.9	4.4
Metals			
Steel mill products	8.1	4.4	3.5
Structural steel shapes	13.5	1.6	4.2
Galvanized sheet	5.7	3.7	3.7
Aluminum ingot	32.2	7.1	1.9
Copper cathode	46.7	19.4	−6.6
Zinc die cast alloy	40.5	18.1	0.9
Titanium mill products	11.4	8.5	1.6
Aluminum extrusions	22.3	5.7	3.0
Components			
Durable components	2.7	3.0	4.4
Valves & fittings	5.3	4.6	2.3
Fasteners	3.3	4.8	3.8
Electronic components	2.0	3.7	3.9
Industrial controls	2.5	2.2	2.4
Motor vehicle parts	1.5	5.5	5.9
Construction			
Construction materials	5.7	5.1	3.7
Paint	3.7	6.1	4.6
Plumbing fixtures	7.5	9.2	2.0
Flat glass	2.2	2.7	3.5
Insulation materials	1.0	4.4	4.3
Machinery			
Transformers & power regulators	1.4	3.3	0.6
Metal cutting machine tools	4.1	5.1	6.0
Material handling equipment	3.1	3.9	4.2
Mining machinery	3.5	5.9	4.2
Railroad equipment	2.6	5.4	5.7

Source: DRI McGraw-Hill Cost Information Service

Nor does all the above exhaust the list of factors pointing toward moderation in the quarters immediately ahead. There's the Fed pushing for higher interest rates (and hence a braking of overall demand). More important, the big runup in raw materials is about over. Some metals have actually been edging lower over the past month or so.

Then there's oil. OPEC has as its avowed aim the reaching of an $18/barrel crude quote. But given continued cheating, this seems unattainable, with a $15/barrel price by year end looking a lot more realistic.

Upshot: Oil tags won't go much higher than they are now. This removes any threat of escalating petrochemical and refined oil prices—areas which, in the past have tended to fuel inflationary fears.

Perhaps the most encouraging signs of all are the continuing moderate price forecasts being made by the major econometric models. DRI sees industrial price averages up about 5% over the next 12 months; Wharton is even more optimistic, putting the increase over the next four quarters around 3%

Take an average of these two projections—and you end up with about a 4% not all that different from last year. These forecasters are equally optimistic about 1990, too—with similar rates of increase seen for that more distant time period.

Low density polyethylene

(Liner grade transaction price ¢/lb)

LDPE demand disappoints

Somewhat disappointing demand—especially in farm and construction films—is putting downward pressure on prices. It's making for the first declines in more than two years—with the key liner grade off 1-2¢/lb. from late 1988 levels (to 49-51¢/lb). High inventories are also a problem for producers. All this suggests that prices won't rise soon—especially if ethylene holds at its current 34¢/lb. level. The fact that demand (expected to rise 3% this year) will lag behind capacity additions (6%) also indicates that prices are about as high as they're going to go.

Connectors go both ways

Prices look to be a two-way street over the next few years. So say producers, responding to a new survey by Technology Forecasters (a Berkeley, CA-based research outfit). Asked to estimate their prices through

Continued on page 10...

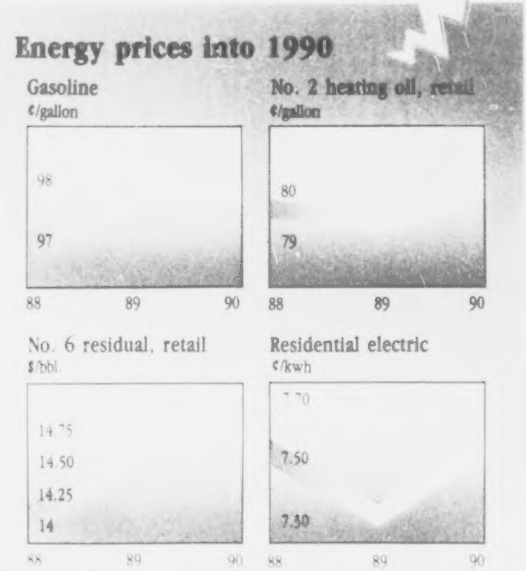
Energy prices to rise slowly

Energy tags still look pretty much under control—despite recent OPEC efforts to curtail surplus output.

At least that's how Department of Energy analysts see things. They project only a slight price rise over the next few quarters. And in 1990, they're betting on a $15/barrel quote.

And what happens to crude will not only impact on refined petroleum products but also on coal, natural gas and even electricity. As suggested in the charts below, price increases will be quite modest—with individual trends shaping up something along these lines:

- **Gasoline:** An adequate inventory situation and restrained crude oil boosts should keep pump prices from edging much above $1/gallon this summer—with a similar pattern anticipated for next year.
- **Heating oil:** Prices should average out near 79¢/gallon (at retail), with low 70s possible during the slow-demand summer months. But some increase in averages to near 82¢/gallon is forecast for 1990.
- **Residual fuel oil:** A slow rise is projected—as retail averages move from $14.22/barrel last year to $14.54/barrel this year and $14.70/barrel in 1990.
- **Natural gas:** Strong demand is pushing prices higher. Upshot: Tags (utility basis) should rise—from $2.25/million BTU in 1988 to $2.31/million BTU this year and to $2.40/million BTU in 1990. Residential quotes will move up commensurately.
- **Electricity:** Rates (residential basis) will be down this year relative to 1988. But a fair-sized 4.4% boost is anticipated for 1990 when the average quote will be near 7.64¢/kilowatt hour.



Energy prices into 1990

Source: Dept. of Energy

Paper price progress slows

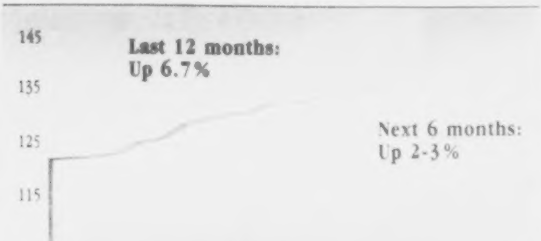
CURRENT SITUATION: Prices continue to inch ahead. But the hikes are not nearly as robust as they were last year when a combination of strong demand (up 3.3% overall) and close-to-capacity operating rates in most areas pushed price averages up by nearly 7%. And some of the increases over this period were even more impressive. **Newsprint is about the only area of weakness**—as discounts offset a new attempt to bring a boost in official lists.

DEMAND: Overall increases will be somewhat smaller than in 1988—reflecting both slower general economic growth and decelerating export gains. **Best bet: About a 3% gain in total paper and paperboard production.** But not all types and grades will fare equally well. Thus linerboard and end-product corrugated boxes will sport about 2.5% advances.

SUPPLY: Fairly snug supplies are expected to persist this year as demand increases detailed above offset an expected 2.8% increase in production potential. So expect these relatively high 1988 average operating rates: Linerboard, 97%; newsprint, 97%; uncoated groundwood, 94%, uncoated free sheet, 96%, and coated papers, 96%. **Things should begin to ease a bit after that if current capacity increase projections of 3.5-3.7% (above expected demand increases) materialize for both 1990 and 1991.**

PRICE OUTLOOK: While the big runups of last year are unlikely to be repeated, the operating rates envisioned for the year should permit a continuing rise. *PurchasingWorld* forecasts call for another 2-3% overall boost over the next six months—with 1989 as a whole likely to end up about 5-6% ahead of comparable 1988 levels. But increases will tend to be uneven. Linerboard, now moving up $30/ton (into the $440/ton range), may advance another $10-20/ton before year end.

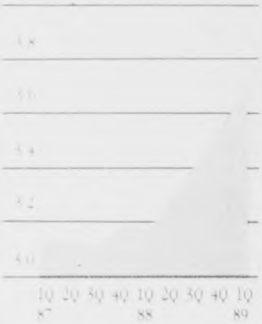
Paper, products prices
Index: 1982 = 100



...Continued from page 9

1993, 55% said higher, 30% said lower, and 15%, no change. Upward price pressures are likely to be strongest in high-density 2-piece PC board, cylindrical, and coaxial connectors. Areas where prices are expected to be steady or lower include DIN-41612, rectangular and fiber optic types.

Tin
(Dealer $/lb.)



Tin turns up

MArkets have turned a lot more buoyant in recent months. Dealer metal now commands upwards of $4/lb.—*versus* $3.20/lb. as recently as late 1987. In part, this could be due to the exhaustion of ITC creditor stocks. In any event, more boosts could be in the offing—with tags as high as $5/lb. mentioned for late 1989. But there are some brakes to a runaway market, too. For one, Brazil may be ready to unload some of it excess stocks.

Steel

Demand is holding up fairly well—actually a bit better than previously anticipated. As of now, shipments for the year could approach the 80 million ton level, about one million above previous estimates, though still under the 84 million total of 1988. But markets remain quite competitive. Upshot: As operating rates begin to slide (from 86-87% currently to under 80% after midyear), prices will level off—a lot different than last year when averages on a transaction basis advanced by about 8%. Indeed, from here on in (second through fourth quarter), tags are likely to remain relatively unchanged at about $535/ton.

Cans and linerboard up

The picture here is basically mixed. On the upside they're cans. Specifically, a recent boost in aluminum can stock is already translating into increases in aluminum beverage containers—with 12-oz. models scheduled to move up $5.50/thousand. And the new $30 linerboard price increase should mean new attempts to boost corrugated boxes. On the other hand, plastic resin prices have leveled out and in some cases have even begun to drop—suggesting that film quotes may be ready to peak out.

Machinery demand keeps prices up

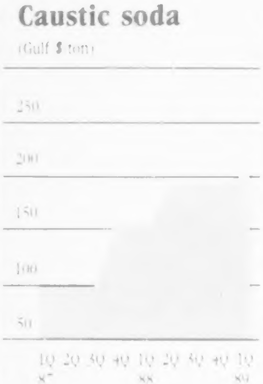
Figure on 1989 increases running a bit in excess of last year's advances. Reasons: Good demand (reflecting the still strong capital investment market) and pass throughs of recent raw material and component part hikes. *PW* equations, for example, indicate a 4% increase in metalworking machinery this year (*versus* 3% last year)—with a similar pattern anticipated for material handling equipment. Other anticipated boosts:—with 1988 figures shown in parenthesis: Construction equipment 5% (*versus* 2.5%), general purpose machinery and equipment 4.5% (*versus* 4%), and special industry machinery and equipment 5.5% (*versus* 3.7%).

Electronic components flat for 1989

A rather flat year seems to be shaping up. Updated demand forecasts by Henderson Ventures, for example, see semiconductors rising only 2.2% in dollar terms this year—a far cry from the better-than-30% advance of 1988. Passive components should fare better—with growth rates put in the 7-8% range. Overall electronic component prices, meantime, should rise only slightly—about 3.5%. But some items are actually declining—especially 1Mb DRAMs where the $30-plus tags of late last year have given way to quotes as low as $17.

Small parcels

Competition is heating up a bit, with Federal Express launching its cheaper overnight delivery service for documents. Specifically, for those dropping off the package at a Fed Ex office, the price for next-afternoon delivery will be only $8.25—significantly under the previously existing $11 tariff that guaranteed delivery the next morning. Aim is to blunt the impact of United Parcel and the Postal Service—both of whom offer under $9 service for delivery sometime the next day.



Caustic soda

(Gulf $/ton)

Chloralkali prices firm

Caustic soda continues to firm—as a new $25/ton increase brings off-list averages (Gulf Coast) above the $220/ton range. And the market here should remain firm through spring. But this bullishness in caustic is being offset by sliding prices of chlorine (a caustic co-product). Spot chlorine tags, for example, have reportedly dipped as low as $20/ton (*versus* $120/ton a year ago). And even the more stable contract market is off substantially—from $100-135/ton last year to only $85-105/ton currently.

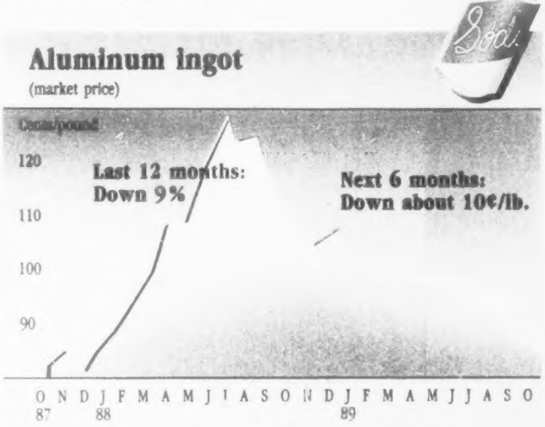
Aluminum edges downward

CURRENT SITUATION: **The light metal has edged down from its $1.50/lb. peak of last year—with ingot currently hovering around the $1/lb. mark.** Even so, that's considerably above the 80-85¢/lb. level prevailing as recently as late 1987. Fabricated products, which generally tend to lag ingot, continue to advance—as new (early 1989) hikes hit flat-rolled products including hotly competitive can stock.

DEMAND: **Industry shipments, despite some flattening, should have enough momentum to reach about 17.6 billion pounds this year—up some 2.8% from 1988's total.** One factor in the continuing advance: Sharply increasing exports which could top the two billion pound mark over the current 12-month period. Also expected to be up this year are the packaging and container, transportation equipment, and electrical product markets—with the only significant decline expected in building and construction. **For the longer pull, look for about 1% annual increases as packaging levels off.**

SUPPLY: **While operating rates remain high, the worst of the pinch seems over.** One indication: A fractional rise in global stocks after a long, steep decline. Best bet for the current year: Global balance, with Free World output of 14.5 million metric tons only slightly above consumption which is expected to hit 14.4 million tons. **Longer run, there are plans for new capacity (as much as 50% in Canada).**

PRICE OUTLOOK: **Improving market balance means last year's peak levels are not sustainable.** Indeed, ingot prices should continue to edge lower—falling into the 85-95¢/lb. range by fall. For the year as a whole, count on about a 90¢/lb. transaction quote—well under 1988's $1.12/lb. average. **As for fabricated items—they're about as high as they're going to go, with some erosion possible by as early as fall or winter.** Longer term, given the absence of glut, there's little likelihood of any really big price slide.

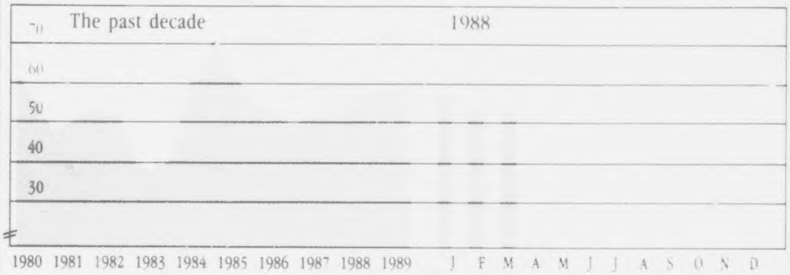


Aluminum ingot

(market price)

N.A.P.M. business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



KEY ECONOMIC TRENDS

NAPM index falling

Gains should be a bit harder to come by over the spring and summer months.

Certainly, the NAPM Business Barometer (chart above) would seem to indicate as much. Readings here have been around the 53 mark for two months running. While still positive (50 is regarded as neutral), that's the lowest level in more than two years.

Based on this and other evidence, *PW's* near-term forecasts have been toned down a bit—with second half real GNP gains (at annual rate) put only in the 2-2.5% range. Similar increases are also seen for factory production. If confirmed, the latter would be well under the 5%-plus rate of advance noted during the last six months of 1988.

The prestigious National Association of Business Economists is also calling for restrained growth. Their latest projection for 1989 as a whole: A 2.7% increase in real GNP—well under last year's robust 3.9% advance.

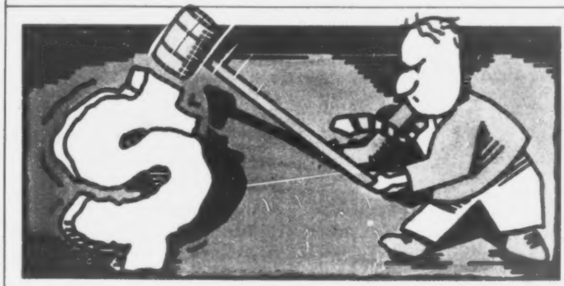
Some of the individual business indicators also point to a somewhat slower rate of advance. Durable goods orders received by the nations' factories, for example, were off 3% in early 1989. True, this was due to a drop-off in defense business. But it's still something that can't be ignored.

And what's true of all incoming durable bookings is equally applicable to one of its widely monitored components—machine tools. Latest reading here shows some modest order slippage from recent peaks (top chart, right). But it should be emphasized that part of this is seasonal. Moreover, machine tool builders are still optimistic—talking in terms of even a slight gain over a boom 1988 when orders approached $3.6 billion.

On the other hand, this industry does acknowledge that rising interest rates could lower their expectations. There's always a chance, they say, that buyers might pull back—as higher money costs affect not only their own financing but also downstream demand for products.

The latter is already apparent in the auto sector where sales during the first two months of 1989 ran 9% under comparable year-earlier levels. But with more generous buyer incentives now being offered, some pickup in this sector seems likely.

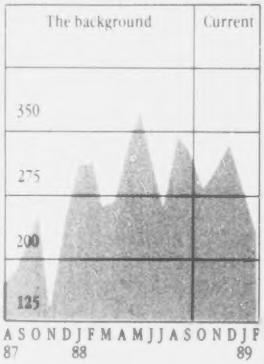
Thus for the year as a whole, the auto industry should sell about 10.2 million units. While hardly earthshaking, it is above re-



Leading indicators

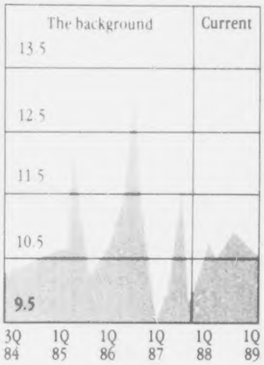
Machine tool orders

Millions of dollars



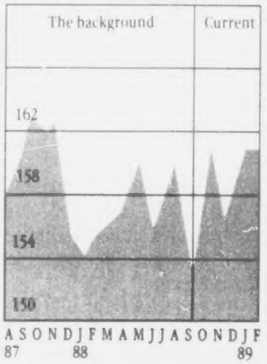
Auto sales

Millions, Seas. adj. annual rate



Help wanted

Index: 1967 = 100



cent rates and not that much under the 10.5 million units that cleared the market last year.

The interest rate impact alluded to above could also be felt in the construction sector. Long-term fixed rate instruments could rise to near 11.5% this spring. This, in turn, could bring housing starts down to the 1.40-1.44 million range at annual rate by summer or fall—significantly under the near 1.5 million figure of last year.

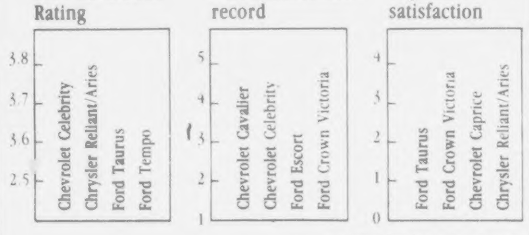
The housing problem is also confirmed by the National Association of Realtors' affordability index. Citing higher prices as well as mortgage rates, the group says this yardstick has taken its largest monthly drop in a year.

Help wanted figures also leave something to be desired—with this index bouncing around with no discernable trend (see chart). It suggests that managers are becoming somewhat cautious when it comes to taking on new personnel.

All the above is in no way meant to imply that everything is leveling off. For one, exports (running better than 20% ahead of a year ago) remain quite buoyant. Then there's today's trim inventory situation—something quite amazing given the maturity of the current upturn.

These latter factors can't be underestimated. Other things being equal, they should be strong enough to keep the economy in the plus column for at least another few quarters--and maybe even longer than that.

How fleet car managers rate cars



Source: Runzheimer International

Fleet managers pick best cars

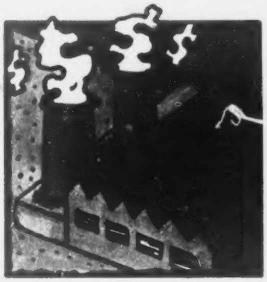
Fleet managers, like everyone else, have their favorite vehicles. Their choice of "best" when it comes to 1988 models: the Chevrolet Celebrity, followed by Chrysler K-cars (Reliant/Aries), Ford Taurus and Ford Tempo.

The ratings, compiled by Runzheimer International, are based solely on fleet car experiences with these and other popular models over the past few years. A rating of 10 is tops—but only theoretically so, since all respondents would have to dub a car as "best" to reach this high. In any case, the actual ratings for the models noted are 3.8, 3.7, 3.6, and 2.5, respectively.

In terms of driver satisfaction, however, the Taurus moves to the top with a 3.8 reading. And not surprisingly according to Runzheimer who dubs this car a morale booster for drivers—one that they can take to the country club without any qualms.

The new study also examines two other attributes of fleet cars—maintenance and best built. As for the former, the Chevrolet Cavalier comes in first (4.8) with the second and third choices (far behind) being the Chevrolet Celebrity and the Ford Escort (both at 3.0).

When it comes to construction, the Ford Crown Victoria takes the prize (3.8)—followed by the Taurus (2.8). Surprisingly, the Chevrolet Celebrity is quite a distance behind in this category—racking up a relatively low 2.5 reading.



CURRENT PRICES

Producer prices still a problem

Industrial producer prices remained a problem last month—advancing about .5% (some 6% at annual rate).

On the brighter side was the fact that the increase was only half of that noted the previous month. Also encouraging were the declines in such key areas as metals after the long, virtually uninterrupted increases of 1988.

Thus copper fell sharply—with mill shapes, and non-ferrous wire and cable following suit. Also down were aluminum and aluminum scrap. Ditto lead and lead scrap. But some offsetting advances were noted for zinc, and steel mill products.

Industrial chemicals meantime, continued to advance—with both organics and inorganics sharing in the boost. Plastic resins also headed higher. But his may only reflect the fact that Uncle Sam's price index is list oriented and therefore may not have been able to pick up all the price shading that now seems to be developing in this area.

Other key sectors sporting price increases last month included paper, paperboard, bearings, and building materials. But the latter (which includes boosts for plywood, softwood lumber, paint, and fabricated structural metal products) may be unsustainable in light of the developing downturn in construction activity.

Energy too should bear close watching. As rising crude oil tags push up such other products as gasoline, diesel fuel, residual fuel, liquid petroleum, and natural gas. Coal however remains on the shaky side.

The slow steady rise in capital equipment tags (up about 0.4% over the past month or just under 5% at annual rate) is also continuing. Product lines socked with higher tags last month included heavy motor trucks, material handling equipment, railroad equipment, farm machinery and transformers. On a rosier note, communications equipment, and integrating and measuring instruments edged lower.

Government price analysts, commenting on the overall trend, were hopeful that last month's deceleration might spill over into early spring. But they hasten to add that increases in more highly fabricated lines could be a lingering problem as cost passthroughs from last year's raw material runup continue.

PROCUREMENT STATUS REPORT

Procurement climate to improve

Delivery is still a headache for a substantial number of industrial purchasing managers. But there could be light at the end of the tunnel—the deterioration of recent months finally seems to be slowing down.

PurchasingWorld's exclusive leadtime index is currently being clocked in at only 51—just one point above the neutral 50 level when extensions and contractions balance each other. In any case, things are a lot better than a year ago when mid-50 readings were not all that uncommon.

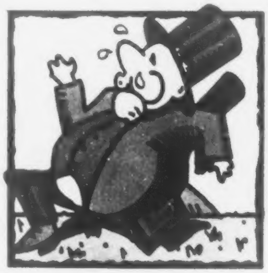
Also indicative of less deterioration is the NAPM report on vendor performance. True, there are still more buyers experiencing slower rather than faster deliveries. But the gap is beginning to close.

The latest index on slowdowns, for example, shows a reading of around 53 (again, 50 is the neutral point). That's far under the mid-60 readings of last summer.

Inventory paring is yet another sign that has to be viewed positively. PMs would hardly be cutting back (the NAPM accumulation index continues under the neutral 50 mark for the second straight month) if availability were an overriding problem.

All the above, however, is in no way meant to imply that there aren't some serious problems. Clearly, many products are still hard to find. Shortages effect not only steel (see the accompanying Steel Scene) but some component parts such as bearings.

On the other hand, this list could narrow—for there are some signs that overall demand may be easing off somewhat. For one, the new order pace has leveled. And a new Federal Reserve study finds a less-robust pace in some areas.



Combine all the above with still-increasing capacity (expect it to rise another 3% or so this year)–and the procurement climate should slowly begin to improve—if not over the next few months than certainly after midyear.

Import share of fasteners growing

Imports could be a major factor in industrial fastener procurement well into the 1990s. Indeed, the overseas share of market is likely to grow—from 16.5% last year to 21.2% in 1993.

This is just one facet of the industry analyzed in a new Freedonia Group report on this close-to-$6 billion industry. Other key findings:

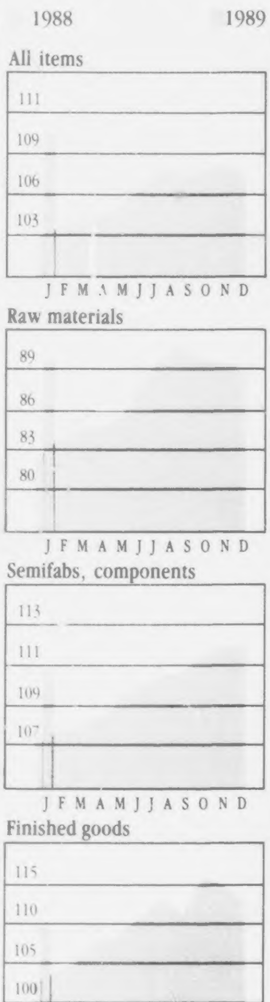
- **Dollar shipment growth:** The 5.1% annual increase of the past 13 years in domestic sales is projected to slow down to a near 4% rate over the next five years.
- **Price:** Inflation will slow down—from 2.9% annually over the 1975-88 period to 1.5% over the next five years.
- **Real shipment growth:** Factor out price change, and real advances in domestic sales will actually accelerate—from 2.2% previously to 2.5% over the 1988-93 period.

On the other hand, the industry will be held down to some extent by slower demand from maturing industries and by competition from other products (improved adhesives, pressure sensitive tapes, and other fastening systems such as Velcro).

The new study also sees differences in rate of growth by type of industrial fastener. Specifically, internally threaded and nonthreaded types (as well as formed fasteners) will exhibit the most rapid growth. And while the more standard externally threaded fasteners will also grow, advances will be at a somewhat slower rate.

Industrial prices

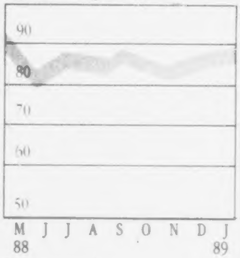
(Index: 1982 = 100)



Source: Bureau of Labor Statistics

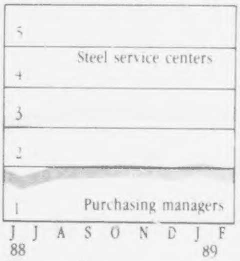
Steel

Operating rates



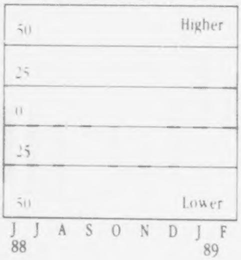
Inventories

(Months supply on hand)

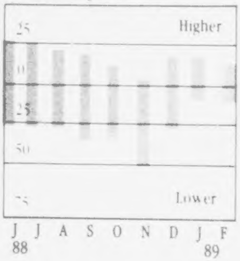


Demand

(Percent of buyer respondents)



Steel buyers



Source: Steel Service Center Institute
NAPM Steel Buyers Committee

Other opportunity areas include special-purpose fasteners (stamped spring-steel, formed metal, plastic, quick-opening, self-sealing etc.). Aircraft/aerospace fastener use will soften as many large defense-related programs reach completion.

Coming back to price—cost competition will continue as imports remain a major factor. Several alternatives for domestic suppliers are available—namely 1) product differentiation along design/technology lines, 2) focus along end-user lines and 3) product differentiation along the lines of quality, dependability and technical servicing.

STEEL SCENE

Steel starts strong

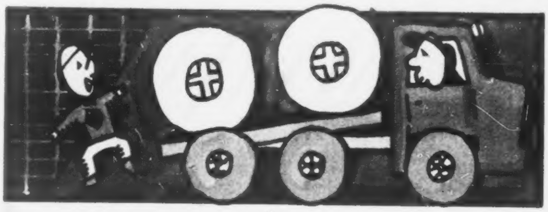
All signs point to a fast 1989 start for steel.

True, buyers (responding to the latest NAPM steel survey) and distributors (responding to the latest Steel Service Center Institute query) have some reservations about second half demand. But zeroing in on the near-term, they say current activity is exceeding their earlier expectations.

For two months running now, more buyers say they will be adding to than subtracting from their overall steel orders over the next three months. True, the gap between those planning increases and those planning decreases is small. But it follows 10 consecutive months of planned retrenchment.

And the same trend is noted by distributors. Here, the net difference between gains and losses is larger. Moreover, this is a pattern that's been evident for three straight months.

Commenting on the current picture, SSCI President Andrew G. Sharkey observes that all customer groups—including machinery, capital goods, consumer products and construction—have been strong. He adds "The inventory-to-shipments ratio for flat-rolled and stainless products is as low as it's been in more than 12 months—supporting member reports that the market is tightening again for cold-rolled, galvanized, and stainless items."



Sharkey's appraisal, incidentally, is confirmed by buyers who remain concerned about the availability of several key products—most notably coated and cold-rolled sheet. The fact that only about one-third of those queried say they are worry-free also has to be considered significant.

Coming back to demand—very little of the bullishness now being reported can be attributed to hedge buying against a possible steel strike this summer. Talks with PMs indicate such protection purchases are minimal—primarily because most believe that if a work stoppage does occur it will be against a single company rather than the entire industry.

One thing for sure, there's little indication that inventories are rising now. Service centers put latest holdings at only a 3.5 month supply—not all that much different than the levels prevailing over the past few quarters.

And the same holds for buyers. Supply on hand here is put at 1.9 months—actually down fractionally from the levels of January and February. As one buyer puts it, 'There should be enough to go around—especially if demand falls off, as we expect it will, after midyear."

If there's still any doubt about the reluctance to build up inventories it should be dispelled by what both buyers and service centers are telling survey takers. On the buyer front, for example, the 35% aiming at a decrease in holdings far outweighs the 9% who want to add. And the figures haven't changed much over the past few months.

A similar approach is

Import prices

(compared to domestic)

Steel buyers

ABOVE 53%
SAME 25%
SLIGHTLY BELOW 22%
SUBSTANTIALLY BELOW 0%

Service centers (carbon)

ABOVE 2%
SAME 83%
5-10% BELOW 15%
10-20% BELOW 0%
OVER 20% BELOW 0%

voiced by distributors. Specifically, the 52% who see stocks as high relative to shipments far outweighs the minuscule 3% who feel they're too low.

The somewhat improved demand outlook, meantime, may be delaying any weakening in overall price levels. One hint of this comes from service center expectations on what they think they'll be paying for replacement metal some six months from now. An impressive 38% feel they'll be paying more—up from the 24% and 30% readings of January and February.

Conversely only 5% expect declines in prices by fall. That's down sharply from the 10% and higher figures of the previous five months.

On a more rosy note, only 7% of the distributors who look for price increases expect them to be in excess of 5%. In short, few anticipate a repeat of last year when the average transaction price shot up.

This month's breakdown

Index: 1982 = 100

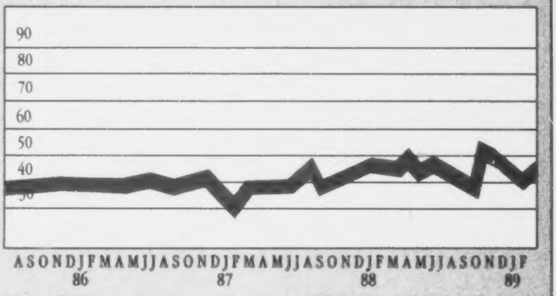
	Latest level (Feb)	% change from: Month ago	Year ago
Bearings	122.5	1.2	10.7
Bolts, nuts, etc.	109.5	−0.2	4.4
Chemicals, inorganic	106.7	0.6	9.0
Chemicals, organic	120.9	0.8	2.04
Concrete products	110.6	0.2	0.7
Corrugated cartons	112.1	0.2	6.0
Cutting tools, small	108.9	0.1	2.0
Electric lamps (bulbs)	123.7	0.2	1.3
Electronic components	119.2	−0.3	2.2
Fans and blowers	116.5	0.2	3.6
Foundry and forge products	113.2	0.8	5.0
Fuel oil (residual)	43.7	4.3	0.5
Furniture, commercial	126.9	0.1	4.5
Gasoline	56.9	2.7	5.6
Glass, flat	110.4	−0.2	1.8
Glass containers	112.5	0.2	0.3
Gypsum products	110.9	−0.2	−5.0
Hand tools	125.7	1.2	5.9
Hand tools, power driven	115.6	0.3	4.4
Industrial furnaces	122.6	0.4	4.0
Integrating and measuring instruments	117.1	−0.5	1.6
Internal combustion engines	112.7	−0.1	1.9
Lubricating oil	106.6	−0.6	3.2
Lumber millwork	124.9	1.1	3.8
Material handling equipment	110.0	0.3	3.7
Metal containers	109.6	0.0	0.6
Metal mill shapes (nonferrous)	139.3	−0.7	14.7
Metal tanks	108.4	0.5	6.7
Motors and generators	127.5	1.1	7.1
Motor trucks	131.1	0.1	5.9
Office and store equipment	108.5	0.1	2.4
Paperboard	138.7	0.7	9.1
Paper boxes and shipping containers	128.4	1.0	7.3
Paper office supplies	120.7	0.8	8.3
Paint	117.2	1.0	6.8
Plastic resins	141.3	0.4	1.44
Precision measuring tools	123.0	1.0	3.9
Pumps and compressors	113.2	0.4	6.0
Refractories	119.2	2.4	5.9
Rubber belts and belting	108.5	0.0	3.8
Scales and balances	106.0	0.0	1.1
Steel products	114.3	0.6	6.0
Switchgear	118.0	1.0	5.8
Textiles, synthetic fibers	100.7	0.5	6.3
Textiles, gray fabrics	114.6	−0.6	1.6
Tires and tubes	96.8	0.9	4.2
Transformers and power regulators	114.5	1.6	5.9
Welding equipment	121.2	0.6	5.8
Wire and cable	146.0	−0.9	15.1

NAPM procurement trends

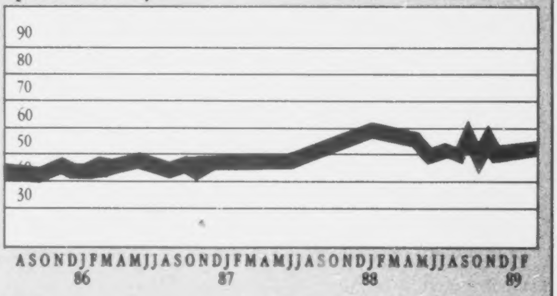
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

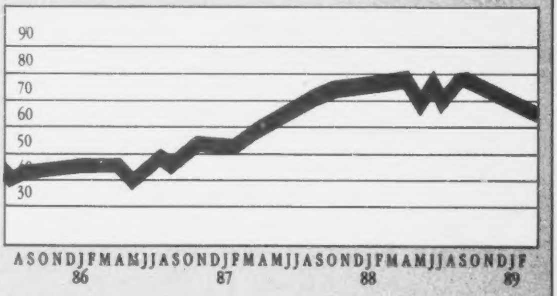
Inventories



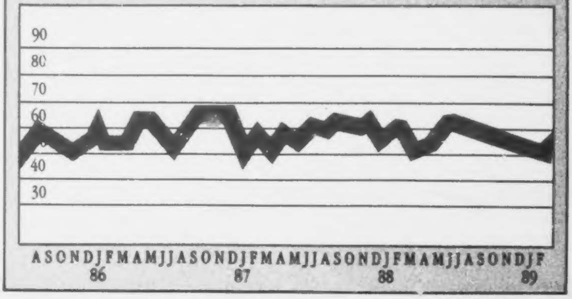
Speed of delivery



Prices



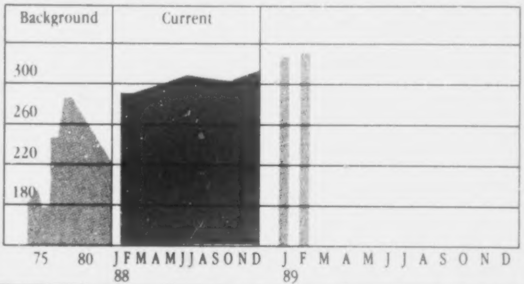
New orders



Raw material price barometer

(Index 1967 = 100)

Last month 329.3
Month before 324.7
Year ago 288.9



Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	18.70	16.50	16.50
Steel, bars, Pitts., cwt	18.70	16.50	16.50
Steel, bars, C.R., Pitts., cwt	25.20	19.45	19.45
Steel, plates, Pitts., cwt	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt	29.65	29.65	28.15
Steel, strip, C.R., Chi., cwt	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	1.030	1.050	1.025
Antimony, N.Y., dealer, lb.	1.00	1.00	1.09
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.17	2.13	1.66
Brass, yellow, [sheet], lb.	2.13	2.09	1.61
Cadmium, N.Y., dealer, lb.	7.90	8.35	7.00
Copper, electrolytic, wire bars, refd., lb.	1.54	1.50	1.02
Copper sheet, over 24 in., lb.	2.26	2.22	1.74
Lead, common, N.Y., lb.	35	.37	.34
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.53
Mercury, 20 fl. lots, N.Y., fl.	320.00	310.00	350.00
Molybdenum, oxide, dealer, lb.	3.78	3.48	3.30
Nickel, cathode, dealer, lb.	8.20	8.30	4.65
Platinum, dealer, oz.	540.00	530.00	480.00
Silver, N.Y., oz.	5.90	5.94	6.29
Tin, N.Y., dealer, lb.	4.02	3.50	3.18
Zinc, Prime West, East St. Louis, lb.	95	.87	.47
Zinc, die casting alloy, No. 3, lb.	1.030	.900	525
PAPER			
Uncoated book #3 offset, ton	1020.00	965.00	890.00
Watermarked bond, ton	1095.00	1080.00	985.00
Gummed sealing tape, carton	18.84	18.58	17.20
Grocery sacks, ton	460.00	460.00	435.00
Solid bleached paperboard, ton	730.00	730.00	650.00
Kraft linerboard, 42 lb., unbleached, ton	440.00	440.00	410.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	283	283	.278
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.18	1.18	1.22
Cotton middling, 1", N.Y., lb.	555	.529	586
Printcloth, 48", 80x80, N.Y., spot. yd.	500	.500	.550
Army duck, 37", 13 oz., yd.	1.50	1.50	1.51
Blended printcloth, 64", 78x54, yd.	.74	.70	.67
20s combed yarns	1.80	1.80	2.04
Wool 64s, Staple, lb.	4.18	4.50	4.25

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	400	.360	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	125.00	125.00	100.00
Benzene, petroleum, tanks, Houston, gal	1.55	1.87	1.10
Caustic soda, 76% solid, drums, carlots, cwt	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	106	.106	.106
Glycerine, synthetic, tanks, lb.	.785	760	.685
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	52	.60	.53
Naphthalene, crude, tanks, lb.	16	.16	.22
Phthalic anhydride, tanks, lb.	.41	.41	.32
Polyethylene resin, low density liner film grade (market place), lb.	.500	.515	.425
Polypropylene, homopolymer grade (market price), lb.	460	.475	.495
Polystyrene, general purpose grade (market price), lb.	585	.590	.565
Polyvinyl chloride, pipe grade (market price), lb.	.44	.44	.40
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.50	50	.46
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	142.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.95	.95	.80
Xylene tanks, gal	1.500	1.400	.760
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	327.44	326.33	323.80
Lumber 2x2 pine, mbf, cl	313.06	311.06	326.00
Plywood, plyform, ¾", msf, cl	550.11	547.39	568.05
Plywood, ⅝", msf, cl	368.33	368.28	400.25
Cement, bulk, ton, tl	63.53	63.48	64.07
Sand, ton, cl	7.18	7.23	7.32
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.69	48.55	48.94
Crushed stone, 1½", ton, cl	6.60	6.71	N.A.
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	86.72	86.72	N.A.
Reinforcing bars, whse base, per cwt	20.85	20.85	20.14
Asphalt paving AC-20	107.51	106.26	137.93
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	7.43	7.39	7.09
Concrete sewer pipe, 24", prem. joint, per foot, cl	17.96	17.92	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	19.30	17.40	15.70
Diesel (reseller rack, Chi), gal.	.511	.478	4.48
Fuel oil No. 2 (N.Y.), gal.	.5775	5060	.4560
Fuel oil No. 2 (Gulf spot), gal.	.475	467	.423
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	18.75	18.50	16.75
Gasoline (reg lded NY), gal.	5435	4910	.4490
Gasoline (reg unlded NY), gal.	5285	.4785	.4315
Kerosene (reseller rack, Chi), gal.	.596	.558	.493
Propane (Mt. Belvieu, Tex), gal.	.2063	.1925	.2413
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	116.00	122.00	121.00
Steel, No. 1 hvy., dlvd., Chi., ton	113.00	119.00	117.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.16	1.12	0.92
Copper, No. 2, East, wholesale buy, dlvd., lb.	1.105	995	.810
Brass, red, East, wholesale buy, dlvd., lb.	1.120	1.080	0.880
Brass, yellow, East, wholesale buy, dlvd., lb.	610	.540	.415
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.675	.670	.625
Alum., mixed clip., E., wholesale buy, dlvd., lb.	760	.760	.710
Zinc, old, East, wholesale buy, dlvd., lb.	.380	.240	.200
Lead, clean solids, East, wholesale buy, dlvd., lb.	.210	270	.210
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	10.00	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	10.00
Old newspapers, Chi., ton	Nom.	Nom.	N.A.
Old white ledger, Chi., ton	75.00	75.00	N.A.

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Office buying plans and efficiency increase

There should be no letup in office equipment buying this year. No problems with prices, either, as competition and technological advances combine to put a lid on price hikes.

So say the majority of purchasing executives responding to a new nationwide *PurchasingWorld* magazine survey. On the demand front, they attribute projected gains to both the increasing availability of new and improved products, plus still-growing office equipment and supply spending budgets.

The overall findings are summarized in the accompanying chart, suggesting that the average volume will be up moderately—pretty much a carbon of responses six months ago when a similar survey was taken.

Another recent study by *Today's Office* tells much the same story. An impressive 82% of these latter respondents project a buying increase this year. But again the emphasis is on the word *moderate*—as nearly half put boosts in the 1-10% range.

The *PurchasingWorld* survey also suggests little danger of any big price spurt. Thus nearly half the respondents here project advances in the 0-5% range this year—hardly earthshaking and a figure that is partially offset by expectations of possible price declines by other respondents.

Moreover, the increases are probably exaggerated. Reason: Buyers don't always take account of the improved efficiency of some of the newer products.

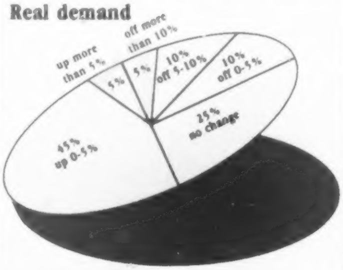
This can probably best be appreciated in the computer sector. A recent study by the Gartner Group finds that the average cost of PC hardware to process one million instructions per second has come down to under $1,000 (*versus* $15,000 in 1981). And all signs point to a further decline by 1993—to only $140.

Such computer price erosion is further confirmed by the First Boston Corporation where analysts figure the price of the average machine fell by more than 20% annually over the past decade. As one of the firm's spokesmen puts it, "Technological progress just overwhelms any inflationary trend."

1989 Office equipment and supplies: a buyer's view

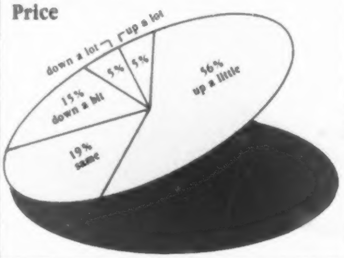
Modest demand gains ahead...

Real demand



but no major price hikes

Price



Fax and copiers also continue to edge lower—with declines in the former just as impressive as in computers. In any event, buyers in both of these sectors are getting a lot more machine for their dollar than as recently as two years ago.

Competition continues to play a major role in all of the above areas. And it's likely to do so into 1990. Example: PCs now seem to be locked in conflict with workstations. More to the point, as PCs become more powerful and workstations less expensive, the two are beginning a fight for the desktops of corporate America.

Buyers responding to the *PW* survey also note a big increase in interest in electronic mail—especially as E-mail begins to hook up networks to make this mode as easy as using a telephone. In any event, the future promises the long-awaited explosion in computer-based messaging—to the point where the market will jump significantly—from some three billion messages last year to near 10 billion by 1991.

The big plus here, aside from convenience, is cost. An overnight letter which can cost as much as $14 can drop to $1 for those using E-mail.

Nor are the improvements limited to computers. There are big advances in printers, including double-sided printing, multiple paper paths and improved graphics. And in the fax area, good basic models can be had for $1,000 or less. And well-endowed mid-range models go for only $3,000—some $2,000 less than they did just two years ago.

Then there's the melding of faxes and computers via fax boards. This can be done from as little as $500. In any case, costs here are well under comparable standalone machines.

That's not to say that everything is coming down in price. Office supplies have been rising. One recent study puts the first half 1989 increase near 3%. And if you zero in on white papers, the increases have been a lot more than that (see *PW Predicts*, this issue.

Increases in the price of supplies are also confirmed by buyers. More than three out of every four surveyed by *PW* see increases in common office supplies this year—in marked contrast to computers and fax machines.

Meantime, as in past surveys, PMs report a number of headaches when it comes to office procurement. Heading the list again are servicing, compatibility and obsolescence.

These problems, in turn, are putting a premium on coordination and would seem to call for a greater purchasing role in the overall decision-making process. Not surprisingly, the majority of pw respondents now say they're part of a small team overseeing the entire process. And an impressive 15% say they are now the primary decisionmaker. ***PW***

Office buyers and vendors see banner year

It's pretty much unanimous—as office equipment manufacturers join the nation's purchasing executives in projecting another banner year in most sectors of this bellwether industry.

New figures just released by the Computer & Business Equipment Manufacturers Association (CBEMA) tell the story. Not only will prices continue to edge lower but these declines will be coming at a time of booming demand.

In any case, some seven of the nine key areas monitored in the chart on page xx show continuing drops in unit tags both this year and in 1990 (with the remaining two targeted for only fractional advances). And even these figures may be exaggerating the real cost—for machines are constantly being upgraded so that a unit purchased this year is generally a lot more productive than one bought, say, in 1987 or 1988.

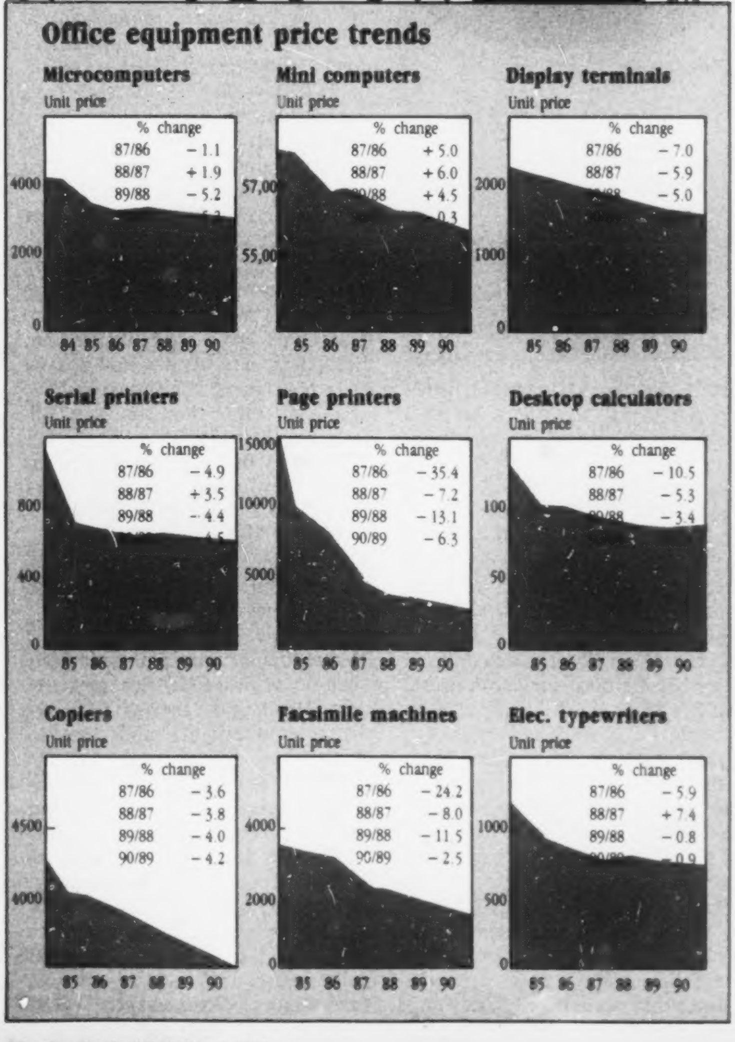
As for demand, CBEMA analysts attribute the big gains to several factors—including 1) impressive technological advances, 2) a need for more office productivity, and 3) a shortage in entry level office workers and data processing personnel that will favor increased automation in both factories and offices.

Generally speaking, the bigger increases (in terms of unit volume) are likely to be in facsimile machines (48% this year on top of the near doubling noted in 1988). Then, too, the 15% or so advance in microcomputer purchases can hardly be called puny. Almost as impressive: The near-11% current dollar advance seen for computer software and services. Even such relatively mature areas as manifold business forms are scheduled for impressive 5%-plus advances over the next two years.

Nor is there any indication of any significant long-term deceleration. Sure, facsimile machines will show somewhat smaller advances during the 1990s. But, by and large, the overall prognosis for the decade ending in 1998 is impressive. In current dollar terms, for example, average annual gains are put at 8.5% for computers, 7.7% for other business equipment, 10.8% for computer software and services, and 5.8% for manifold business forms.

And the rosy long-term outlook is equally applicable to prices. Again looking at unit tags, every one of the nine product lines shown in the price chart will show average annual declines over the 1988-89 period.

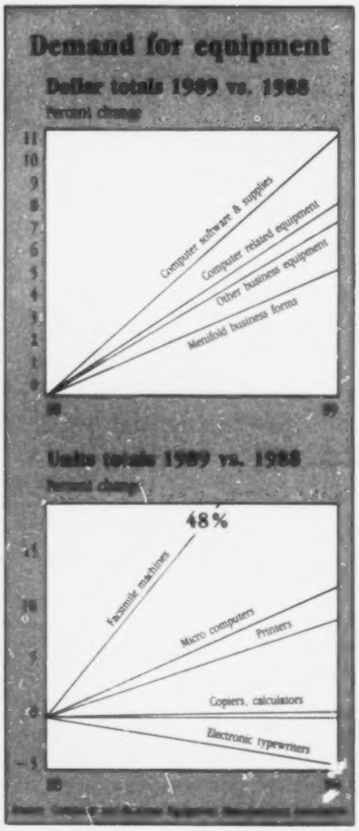
Here's a more detailed rundown on the market outlook for these and other product areas—both over the



Office equipment price trends

next year or two and for the longer pull:

- **Microcomputers:** Close to 5.4 million units are expected to clear the market this year—up 15% from 1988, with another 13% advance forecast for 1990. Average prices, meantime, will fall—5% this year (to $3,546) and a similar percentage in 1990 (to $3,360). Long-term (1988-1998) prices should fall about 6% a year while comparable average unit demand gains are put in excess of 14% a year.
- **Minicomputers:** Average prices will increase about 4.5% this year and flatten out in 1990. And for the 10-year period ending in 1998, unit tags for these minis should fall about 0.5% a year. Unit sales, meantime, are expected to advance about 7% in both 1989 and 1990—with long-term growth put at a slightly higher 8% rate.
- **Mainframe computers:** Prices will remain relatively stable through the next decade—little changed from the current $1.13 million/unit figure. Demand gains will be quite modest, too—with unit sales rising at only a 2.5% rate through the 1990s.
- **Computer software and services:** A 10.8% annual growth rate (in current dollars) is projected through 1998—large but somewhat under the 16%-plus pace of the 1980s. Biggest advances will be in software (13.2% annually)—followed by professional services (9.8%) and processing services (9.1%).
- **General purpose display terminals:** Demand, up 8.5% last year and probably only 4% in 1989 will continue to taper off—as the average gain for the next 10 years slows to only 0.6% a year. Reason: These units are facing increased competition from low-end personal computers. Prices, meantime, should continue to decline about 5% a year—with the current $1,769 quote dropping down to $1,060 by 1998.
- **Page printers:** Unit demand growth (24% a year through 1998) will be at the expense of line printers which are expected to be off 19% annually over the same period. Sharp price reductions here (made possible by technological developments) will enable these printers to make significant inroads against serial printers, too. This year, for example, the average tag should be off 13%—with another better-than-6% decline forecast for 1990.


Demand for equipment

Dollar totals 1989 vs. 1988

Percent change

Units totals 1989 vs. 1988

Percent change

> *"Not only will prices continue to edge lower but these declines will be coming at a time of booming demand."*

- **Serial printers:** This second largest printer category in terms of dollars will show a respectable 9.4% annual growth—though well under that envisioned for page types. Upshot: Serials will have only 21.2% of the market by 1998—*versus* 39.7% last year. But prices here should also continue to soften—falling about 6% a year.
- **Calculators:** Only very modest price erosion is projected for both desk and hand-held types—with overall decline in the former averaging out at less than 1% over the next two years. Unit demand will also be quite restrained—up 1% on average over the 1988-90 period. And a similar slow-growth pattern is seen for the longer pull—with sales of desktop units advancing a just-short-of-4% rate over the next decade.
- **Copiers:** The 4% price decline of last year will pretty much be repeated in both 1989 and 1990—with the 10-year attrition put at only a slightly lower 2.7% rate. Good demand will also continue—as both 1989 and 1990 sales rise in the 5-6% range. All types of plain paper models (low, moderate and high-speed models) will share equally in the gain—though low-speed models (830,000 units this year) will continue to make up about 62% overall.
- **Dictating equipment:** This will continue to be one of the slow growing areas—as average unit growth over the next decade holds at the 1.1% pace of the past 10 years. The best gains (2% a year) seem likely in the dictation systems rather than in desktops (0.8% a year) and portables (1.4% a year). Also—contrary to the general trend in other equipment areas—unit prices should increase rather than fall (by about 2% a year). On the other hand, this is somewhat misleading since all increases will be due to continuing enhancement of product functionality.
- **Facsimile equipment:** Unit growth has doubled annually since 1985 when their machines really began to catch on. At the same time, prices fell about 25% a year (to an average quote of only $2,300 last year). Even the expected slowdown

Continued on page 27...

demise of that traditional dealer with whom most buyers do their office supplies business, consider that while their market share has dropped, their actual dollar volume has increased, reports Bodeewes. What seems to be happening is that buyers are dividing their purchases between several types of sources. One Fortune 500 senior buyer in charge of centralized procurement of office supplies buys paper from one national distributor, small office items from six regional distributors, and equipment (fax, ETs, copiers) and services from local dealers at each of his company's 11 locations. "Those local dealers provide us with all maintenance and repair services and they act as consultants to keep our office technology up-to-date—a service we *want* to pay for."

Beware of single sourcing

"No single source is going to be the answer for any buyer," asserts NOPA's Bodeewes. A combination will work very well, he says, if buyers take time up front to determine where to lump purchases. Writing instruments and desk supplies may be terrific candidates for mail order purchasing while paper, forms, computer accessories and furniture might be acquired more prudently through a vendor who can provide advice and services.

Industry experts also advise buyers to take a hard look at the blanket contract with a single vendor.

If you sign an agreement to buy everything from one dealer for a year at a 30% discount off catalog price, you may not be getting as great a deal as you think. A mail order firm or wholesale club may be able to save you 40-50% off a large number of items you regularly buy, so the fact that you're getting a 30% discount on a few other items may not outweigh the potential savings of other sources.

While reassessing the way your company buys its office supplies may seem like just a lot more work, there is some good news. Bodeewes and NOPA's survey report that manufacturers will be improving the way they package and market their products to make it easier to select the right items for the application. And vendors are aggressively pursuing new and better ways to meet customer requirements. You may also be able to pick up a few helpful hints from your colleagues in the CBEMA report (see accompanying story) on *PurchasingWorld's* latest buyer's survey.

...continued from page 25

(due to a maturing market and competition from the paperless office) will be to very high-growth levels. CBEMA puts the average unit advance through 1998 at near 27% a year—with prices also expected to continue falling at a rather fast 12% a year. Upshot: By 1998, the average fax should cost only $875—down 62% from last year's level.

- **Manifold business forms:** Only dollar consumption estimates are given here. Best bet: A 5.8% annual advance into the 1990s—somewhat lower than the 8.4% annual pace of the past decade, but still quite respectable for a market which is beginning to feel the effects of technological replacement.

> *"Even such relatively mature areas such as manifold business forms are scheduled for 5%-plus advances."*

- **Standard office electronic typewriters:** Unit sales have peaked—and are forecast to decline to 730,000 units in 1998 *versus* 1,130,000 units last year—as competition from personal computers and text processors intensifies. Unit prices should slip only slightly (1% a year) over this extended period—with a typical full-sized unit that commanded $893 last year falling to $802 by 1998.
- **Portable electronic typewriters:** Units resumed their decline last year following a 7.5% advance to 1987. And the slippage is expected to persist—for changing demographics are not conducive to growth, as the number of high school and college-age Americans (key consumers) continues to shrink. Also being felt is competition from inexpensive personal computers. Result: Unit sales will fall at a 4.7% annual rate through the 1990s—even though prices should become increasingly attractive—declining by about 3% a year.

Food cost pressure stays low

Last month PurchasingWorld ran a short feature on the cost of food and its effect on the cost of living. The trouble was it was too short—we left off the table which would give detail to the story.

Overall, our feature pointed out, a 3-5% boost can be expected in food tags, not all that different from 1988's 4%. Fruits, vegetables, cereal and bakery products, and eggs will contribute most to the rise; meat and poultry prices will increase very little. Fish, on the other hand, because of its rising popularity, could increase up to 7%.

Dining out will cost more, too: more than a 4% increase can be expected.

The table presented here provides a more detailed look at 1989 expectations:

1989 food costs—no big problems

	1986	1987	1988	1989
	Percent change from a year earlier			
FOOD AT HOME	2.9	4.3	4.0	3 to 5
Meat, poultry, and fish	4.3	6.4	3.2	0 to 3
Meat	3.2	7.1	2.0	1 to 3
Beef and veal	0.6	7.6	4.9	1 to 3
Pork	8.2	8.2	−2.9	1 to 4
Poultry	7.5	−1.5	6.6	−4 to −7
Fish and seafood	9.2	10.6	6.1	4 to 7
Eggs	6.9	−5.9	5.2	15 to 20
Diary products	0.2	2.5	2.0	2 to 4
Fats and oils	−2.2	1.5	4.1	3 to 6
Fruits and vegetables	0.9	8.8	7.3	3 to 6
Fresh fruits	2.1	11.3	7.8	6 to 9
Fresh vegetables	4.0	12.9	5.8	0 to 3
Processed fruits and vegetables	−1.6	3.5	8.1	4 to 7
Processed fruits	−2.9	4.1	10.6	4 to 7
Processed vegetables	−0.2	2.7	4.7	4 to 7
Sugar and sweets	3.2	1.8	2.7	4 to 7
Cereals and bakery products	2.8	3.5	6.4	4 to 7
Nonalcoholic beverages	5.9	−2.6	0.0	4 to 7
Other prepared foods	2.6	4.2	3.6	3 to 5
FOOD AWAY FROM HOME	3.9	4.0	3.9	4 to 6
ALL FOOD	3.2	4.1	4.0	3 to 5

FREE LITERATURE

Fasteners catalog

This 4-page catalog includes the parts' abbreviations, available materials, thread sizes and a general description of usage. Of special interest is the addition of several new products developed by precision diecasting, including threaded and unthreaded zinc alloy spacers. *Standard Insert Co.* **Circle 90**

Product identification programs

Brochure outlining complete product visual marking programs is introduced with available graphics including decals, labels, nameplates, faceplates, overlays, decorative trim and logos. VMS offers full graphic design services, film engineering and testing, a 100% inspection program and just-in-time delivery and warehousing. *Visual Marking Systems Inc.* **Circle 91**

Business supplies and accessories

The 80-page, full-color, free guide contains more than 3,000 products targeted to meet the needs of business, computer, and telecommunications equipment users. It also contains supplies and accessories for nearly every make and model of computer equipment. Products include ribbons, diskettes and other magnetic media, diskette storage devices, printwheels, cleaning aids, power conditioning, security products, acoustical cabinets, plotter supplies, paper, and software. *Bell Atlantic Business Supplies.* **Circle 67**

Tube and pipe stock list

This 120-page tube and pipe stock list describes more than 10 000 sizes, shapes and grades of tubular products from service center. Included are complete item listings in carbon and alloy steel, stainless steel, and aluminum, a technical section devoted to tolerances, mechanical properties, and chemical compositions, and locations, addresses and telephones of all K-R Service Centers. *Kilsby-Roberts.* **Circle 66**

Plastic tubing and fittings

This 34-page catalog details New-Age tubing product lines such as SILVAC—a silicone suction tubing, COILTEF—ultra flexible, coiled Teflon® tubing; and CLEAR-40—crystal clear rigid schedule 40 PVC pipe. Also included are four different fittings lines and clamps, both plastic and stainless steel. Tubing formulations of PCV, polyurethane, silicone, Teflon®, Viton®, nylon and polyethelene in different construction designs will cover most industrial, chemical, or food applications. *NewAge Industries Inc.* **Circle 53**

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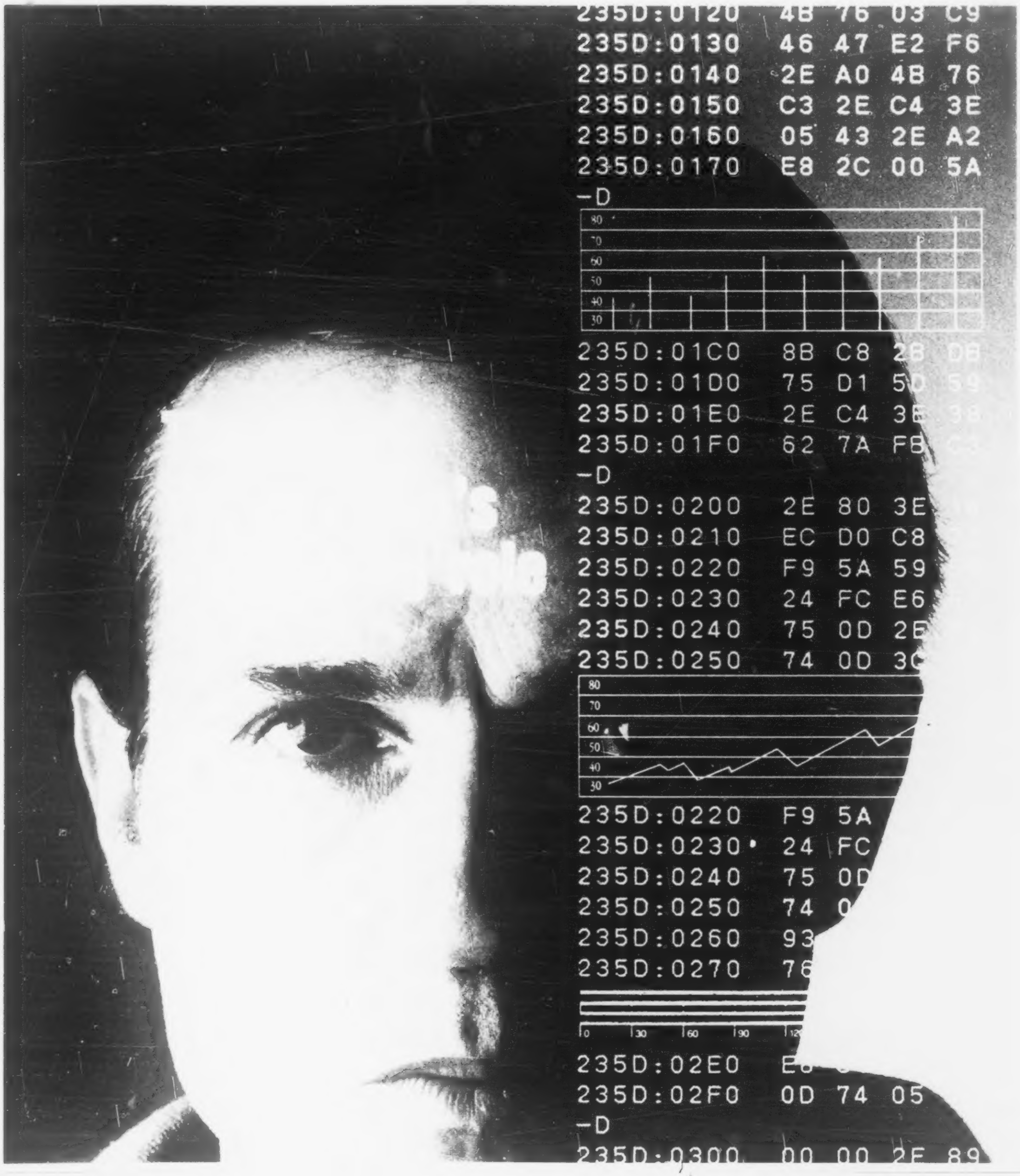
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MRO cuts costs • The packaging outlook

Foreign sourcing • That's the deal—take it or leave it!

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In his survey of the month, Editor-in-Chief Bob Reichard gives a product-by-product rundown of the packaging materials scene.

59 Refurbishing: new twist in office buying

Got modular panels and need to move? Need more but can't find them? A unique office supplier has a catalog you'll love.

PurchasingWorld

Long-lived gloves

Useful life can often be more important a buying determinant than initial price—especially when buying consumables like work gloves.

Purchasing 101? Sure. But all too often the idea is forgotten in the race to find the lowest-priced supplier.

A recent example supplied to *PurchasingWorld* by Linda K. Ferrell of York, PA-based Cole Office Environments: When the senior buyer first joined the firm in mid-1987 she was immediately confronted with a major problem: The wasted money that the company continually poured into its work glove inventory.

Sure, the price of the foreign-made work gloves purchased at that time was low (only $1/pair). But they lasted only three hours, which meant higher inventories, continual replacements, and a not-so-cheap 33¢/hour cost for this protective gear.

An alternate turned up by Ms. Ferrell cost more than double per pair ($2.50). But detailed calculations showed that total cost was a lot less—for these initially more expensive gloves (made by Jomac Products) could last 4 work hours and be laundered twice at minimal cost.

In any case, the per-hour cost of these new gloves came to only 11¢/hour—one third that of the cheaper imports. Other pluses: Glove inventories were reduced. Ditto, worker injuries as the improved gloves were used more intensively by workers. *Jomac Products.* **Circle 42**

Free bar code design guide

Handy, comprehensive guide from Computype contains descriptions and diagrams showing size ratios of more than 12 elements that must be considered when designing you bar code label. A grid is provided as a guide for the design and an '800' number is offered in case you need help. You can mail your completed label design to Computype and receive a free, no-obligation need analysis. *Computype, Inc.* **Circle 105**

Removable folder labels eliminate a nuisance

File folders can be reused, and there's no unsightly build-up of labels, using Post-it labels from 3M. Like other Post-it products, the labels are easily realigned and repositioned or removed without tearing the folder or leaving behind an adhesive residue.

A full coating of Post-it adhesive means that labels attach securely and stay in place on the folder for as long as needed. In comparison, the adhesive used on conventional file folder labels tends to yellow or dry out over time.

One-third cut labels come in a choice of 12 border colors; one-fifth cut in eight colors. *3M Commercial Office Supply Division.* **Circle 133**

VMA takes on service, repair problems

Valve manufacturers are still concerned about bogus valves (rebuilt and surplus valves sold as new); valves passed off as made by another company (counterfeit valves); valves not rebuilt to manufacturers' specs and valves sold for the wrong application (sometimes purposely mislabeled). It has launched a campaign to alert valve buyers to the problem. Recently VMA announced another campaign which concerns shoddy valve repairs.

The VMA has appointed a Service Council whose goal is to alert valve users to the problem and its dangers and to come up with a list of VMA-authorized service and repair facilities. The Council will also encourage VMA members to add or expand in-house service and repair centers and it will encourage franchising VMA-authorized valve rebuilders, who will work closely with valve manufacturers. For a list of VMA-authorized service and repair operations **Circle 292**

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by Robert S. Reichard, editor-in-chief

Light at the end of the tunnel?

There may be a light at the end of the inflation tunnel.

Price hikes still far outnumber the scattered reductions that some purchasing executives manage to negotiate. And price averages—as measured by Uncle Sam's broad-gauge producer and consumer price indexes—have been advancing at a faster-than-1988 pace. Yet the above has to be weighed against these positive signs:

- **Import prices are no longer rising.** The average incoming quote (ex petroleum) actually managed a small reduction last month—thanks in large part to the stabilization of the dollar after a long fall. And while nobody expects a continuing downtrend, the consensus is that import tags (again, ex petroleum) will rise far less than in 1988 when the average incoming shipment jumped a hefty 7%.

There could be a domestic impact here, too—namely additional competitive pressures on U.S. vendors. With more stable import tags, they may think twice before posting big new increases.

- **Buyer price reports are not all that bad.** The latest NAPM Business Survey Committee inflation index was clocked in at 68.3. While still far above the neutral 50 level (when increases and decreases balance each other out), the yardstick is nevertheless at its lowest point in 22 months (except for the past February). NAPM further notes the index has been "in an overall declining trend since mid-1988"
- **Resistance to increases is stiffening.** Big steel buyers like the automakers are ready to fight steel mill increases on new long-term contracts. Moreover, recent *PurchasingWorld* surveys suggest the resistance has spread to a lot of other product areas—with purchasing managers demanding detailed cost justification before agreeing to any significant price increases.

This resistance is also becoming more apparent on the consumer level. Families are going out of their way to shop around for bargains—helping to perpetuate price discounts at thousands of stores.

- **The Fed is also doing its part.** Both the narrow and broad measures of the money supply have shown little growth since the middle of last year—thus depriving inflation of the fuel it needs to accelerate.

But beyond these factors are the continued lack of both demand/pull and labor-cost/push inflation. On the demand/pull front, operating rates have flattened out at just a shade under the 85% level. That's still well below the peaks of the 1970s. More important, those utilization rates are more likely to go down than up—as increasing potential comes onstream at a time when demand gains are expected to decelerate.

Another sign of adequate supply: The slowdown in vendor deliveries seems to be running out of

Continued on next page...

Semiconductor picture clears

The 1989 semiconductor market is coming into sharper focus. Volume could show some fair-sized gains (though a bit under last year's advances). But because of the price declines the dollar increases should be minimal.

That's the latest forecast from Henderson Ventures. The Los Altos, CA-based consulting firm sees only a 2.2% dollar advance in U.S purchases of semiconductors—nowhere near the 31% jump of 1988.

But as suggested, prices are the key in the big shift. Factor out last year's 17.5% price boost and this year's estimated 8% price decline—and the unit figures aren't all that much apart—up 10% this year *versus* 13.5% in 1988.

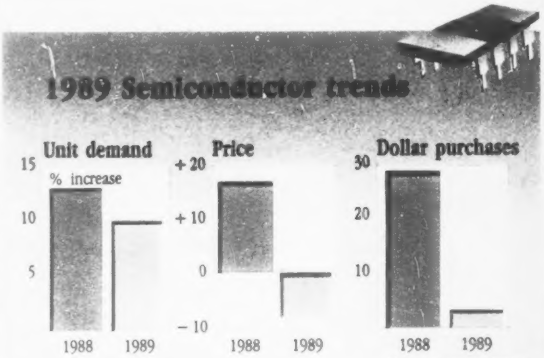
On the other hand, not all lines will fare equally. In general, discrete devices and linear ICs will hold up relatively well, while digital IC sales decline. And within the digital IC sector, performance will be unbalanced—with the expected sharp decline in memory prices having a distorting impact on overall sales.

On the memory price outlook, Henderson notes that these chips are already way off because of rapidly improving supplies. Example: The spot price of 1 meg DRAMs was around $16 a month ago—compared to $32 last summer. Prices by year end may be below $10.

Henderson also provides some estimates for passive components. Overall current dollar growth is expected to decelerate—from 9.7% last year to about 5.2% over the current 12-month period.

The generally positive totals detailed above are premised on the expectation of continuing good end-use demands. A solid 8.1% gain is seen in dollar sales of industrial (including instruments) electronic equipment. The computer and office and commercial sectors won't be far behind—with 7.7% and 5.8% advances being projected.

The only weak spots: Consumer and military product lines where only 3.1% and 1.4% dollar advances are anticipated for the current year.



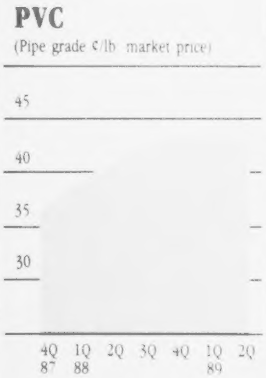
Source: Henderson Ventures

steam—with the latest 51 reading being only one point above the neutral 50 mark and the lowest such level in more than two years.

As for the labor-cost/push inflation—it's still nowhere to be seen. Wage hikes for the most part remain moderate. In fact, after adjusting for inflation, hourly earnings are actually below where they were at the end of last recession.

Moreover, talk of tight labor markets seems to be overdone. Use an alternate unemployment measure (one that includes both discouraged and involuntary part-time workers) and you end up with a 10.8% jobless rate—actually above the 9.7% reading of a decade ago.

All the above does not mean, of course, that we can afford to let our guard down. But given the facts, there's little to suggest that another inflationary spiral is in the making. Put another way, the combination of enhanced global competition, more capacity expansion and improving productivity (up 3.2% last year in the manufacturing sector) will put a lid on price increases—with 1989 advances in both the producer and consumer areas running only about one percentage point above last year's levels.



Polyvinyl chloride prices ease

Prices have softened a bit—with pipe grade resin off 1¢/lb. (to near 43¢/lb.). And two large producers are said to be quoting an even lower 42¢/lb. for volume buys. Credit the easing to both 1) demand deceleration (only a 2% gain is seen for the year, the same as in 1988 but well under the 9-10% advances of 1986 and 1987), and 2) rising capacity—expected to rise 8% this year on top of 1988's big 6% boost. Upshot: Operating rates will drop to near 85% this year (versus 90% in 1988).

Lead demand improves

Demand has improved a bit on somewhat larger battery maker purchases. But the recent mild winter (impacting on lead usage) has hurt. Also the market does not seem to have the upward momentum to sustain a rally during the coming seasonally slack period. Certainly there's little chance of tags moving above the current 35¢/lb. level—and they could well continue to slip from the 42¢/lb. peak of a few months back as supplies again begin to build up. Disappointing overall 1989 demand, too,

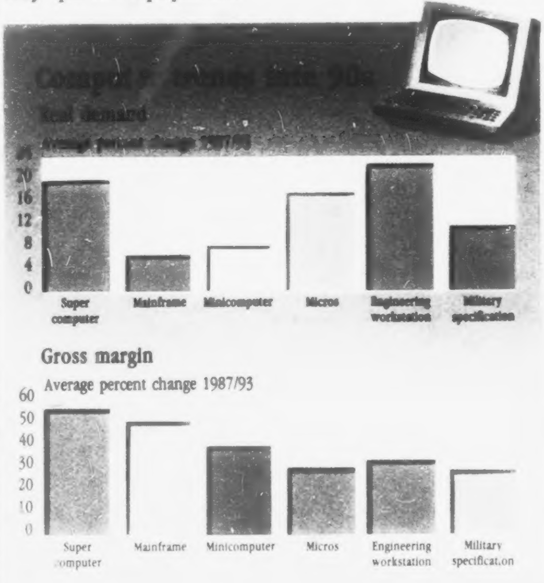
Continued on page 12...

Computer trends into the '90s

Look for relatively uneven gains in the still rapidly growing computer sector. So say a panel of experts (Wall Street analysts, industry consultants, vendor analysts, and large users and customers) participating in a new Wharton Econometric Forecasting Associates (WEFA) study.

Some of the group's key projections over the next few years (many of which are summarized in the chart alongside):

- Engineering workstations will lead the pack in demand gains—with the compound annual growth rate through 1993 put near 25%. Impetus will come from a combination of factors—including new applications, networking with mainframe and micro systems, UNIX standardization, falling prices, and the increasing availability of software.
- Supercomputers and microcomputers are expected to grow at only slightly slower rates (20% and 17.5%, respectively). The latter's growth should be fueled by 1) increasing software functionality and availability and 2) new applications—including networking, lower-end workstations and desk-top publishing.
- Prices are expected to continue trending down so that dollar shipment gains are likely to be smaller for all types.
- Profits are expected to be highest for supercomputers—primarily because of the application-specific nature of most installations and the relative lack of competition. The aggregate gross margin here is put at 55%.
- Price pressures in the micro market will hold down this category's average gross margin to 35%. That's not only under the 40% reading of the 1981-87 period, but the lowest return of all computer sectors except for military specific equipment.



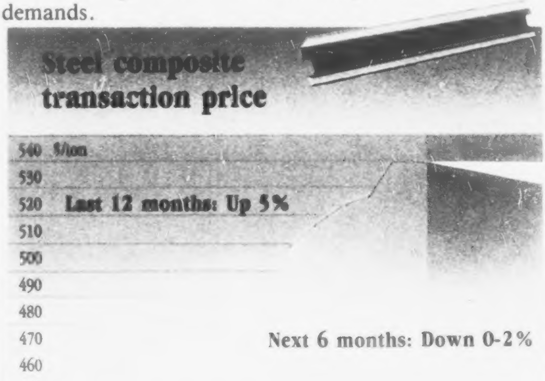
Durable goods prod steel gains

CURRENT SITUATION: A new 5% hike on a broad spectrum of products has just gone into effect. It follows a failed attempt (in January) to boost tags $15-30/ton. But how much of the new increase holds up remains to be seen. Although firms who buy steel on negotiated long-term contracts won't be directly affected, demand remains firm—with mill utilization rates moving back up to the 90% level. And judging from the brisk pace of incoming orders, **shipment levels should stay strong through the current quarter.**

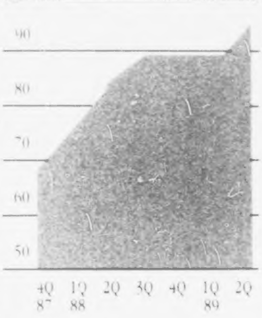
DEMAND: Current bullishness stems in part from recent gains in durable goods production. But hedge purchases could also be playing a role—as concern about mill strikes grow (many of the major producers have labor contracts that expire on or before July 31). All this suggests that the first half will be better than the second half—especially if activity in the auto, construction, and other steel-using sectors slows down. **Second half shipments should hit only 39.5 million tons—well under the 42.5 million estimated for the current six month period.**

SUPPLY: The expected demand slowdown should ease concern about availability and stretched out leads. True, a work stoppage could create problems. But at this stage of the game a major supply interruption seems unlikely—especially since the number one and number three steelmakers (USX and LTV) are not affected by negotiations.

PRICE OUTLOOK: The recent hikes should hold up fairly well in the near term. But look for some modest erosion after midyear—provided, of course, a strike is avoided. Wharton Econometrics sees the composite price dropping to near $534/ton by the fourth quarter—off about 2% from current peak levels. This, in turn, suggests about a 4% increase for the year as a whole—half of last year's estimated 8% jump. Also worth noting: Automakers are likely to resist new mill demands.



will keep a lid on tags—as U.S. chewup for the year barely tops last year's 1.2-million-ton total.



ABS resins

(Pipe grade ¢/lb. market price)

ABS demand holds up

Markets here seem to be avoiding the softness noted in other resin areas. One reason: Prices over the past year rose a lot less precipitously than in other thermoplastics. Then, too, domestic demand has been holding up quite well. For the year as a whole, forecasts now call for about a 3% increase in shipments—not all that bad considering that production potential will be increasing by only about 1%. Prices have just gone up 6¢/lb.—enough to bring the going quote for pipe grade material up into the 93-98¢/lb. range.

Aluminum's slide continues

The slow slide first noted a few months ago is continuing. Market ingot, for instance, has been quoted at around 95¢/lb. in recent weeks—a far cry from the $1.30/lb. peak of last year. Some softness has also been noted for common alloy flat-rolled products. Improving supply could be another downward factor. Thus worldwide output—aided by the reopening of previously shuttered facilities—is currently running 6.5% ahead of a year ago. That's a much bigger gain than noted for consumption over the same period. Not surprising, producer stocks are beginning to rise—with prices for ingot expected to fall as low as 80¢/lb. by summer or early fall.

Alloys climb vanadium ladder

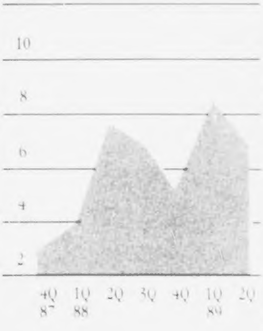
High strength-low alloy (HSLA) plate will be bumped another $10/ton in July. Some size extras are also going up. Blame it all on rising costs of vanadium alloys. On the latter score, vanadium now commands $18.50/lb. (producer basis)—more than three times the $6/lb. quote of just one year ago. That's quite a lot for steelmakers to absorb inasmuch as some HSLA plate contains as much as two pounds of vanadium per ton.

Copper's changeable market

A slow downdrift can be discerned in what otherwise still has to be called an extremely volatile market. And this pattern should persist—with fourth quarter averages dropping down near $1/lb. Signs of easing include rising exchange stocks, new production coming onstream and lessened expectations of big North American strikes. Assuming no such work stoppages, Free World production should rise 5.5-6% this year—allowing for some buildup in worldwide inventories as global consumption advances by about 2%. But this caveat: Should a strike occur, tags could well zoom up again—for current global supplies are put at a relatively low 3.1-3.2 week supply.

Nickel

(Dealer cathode $/lb.)



Resistance drops nickel prices

The volatile plating and alloying metal has dropped down to near $7/lb.—more than $1/lb. off recent peaks. Behind the sudden bearishness: Resistance on the part of European stainless buyers, expectations of slower second half consumption, and improving supply/demand balance. Indeed, all these factors suggest that the market is in for more slippage—with second half prices falling to $5/lb. or less. But even this would be quite high from a historical perspective—for 1986 and 1987 quotes averaged out at only $1.86 and $2.28/lb., respectively.

Video conferencing price drops

Hardware systems have been cut to as low as $34,000 per site—just one-third the price prevailing as recently as a year ago. Hardware on such small portable systems includes a color monitor, a two-way audio system, and a video codec that permits phone transmission—with all these pieces hooked up to a common phone line. Upshot: Video conferencing equipment sales which totalled only $33 million last year could be approaching the $1 billion mark within a decade.

Air packages are up and down

A mixed picture here. Prices remain soft on small express parcels—in part because Federal Express (the dominant carrier) recently introduced a deferred next-day service that is cheaper than its premium-priced next-morning delivery. On the other hand, Airborne, Fed Ex and United Parcel Service have all imposed hikes averaging near 5% on domestic shipments weighing more than 20 pounds. Exempted from this boost, however, are customers under long-term contract.

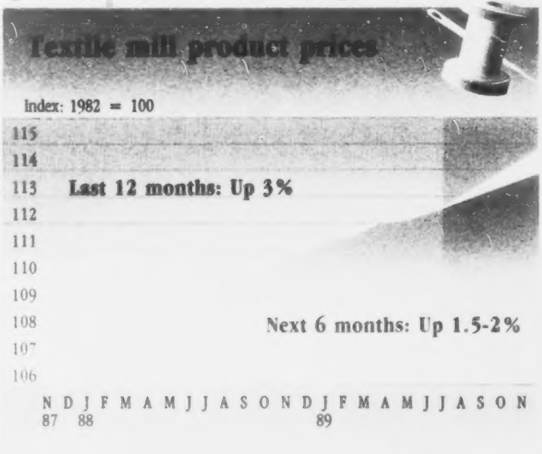
Textile prices edge up

CURRENT SITUATION: Prices are slowly edging higher—prodded by a spate of recent increases in manmade fibers. Mills are paying a lot more these days for such key materials as polyester, nylon, acrylics, and rayon. And while wool and silk have stabilized, tags in these areas are running far ahead of year-ago levels. Domestic production, meantime, has been holding up as import competition levels off. At latest report, for instance, mill output was running close to 2% ahead of last year's average—**enough to put the industry operating rate in the relatively high 80-90% range.**

DEMAND: Mill output, despite some slowdown in overall economic growth, should rack up a respectable 3-4% gain—actually above the fractional advance of last year. Denim should do particularly well. So should fabrics going into women's wear after 1988's disappointing performance in this sector. Sheetings and home accessories are also expected to show gains. Ditto, manmade fibers, where another 4% demand increase seems likely. One factor behind the uptrend: relatively trim inventories. But the import slowdown could be another factor **if the industry can duplicate last year when incoming totals (square yard equivalent) fell 7%.**

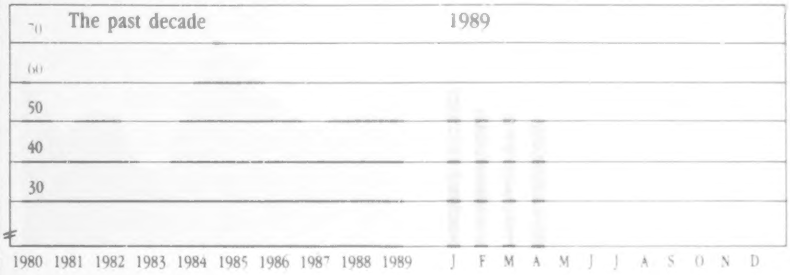
SUPPLY: A few problem areas persist—most notably in manmade fibers such as rayon and polyester where output is running close to full capacity. But fabrics don't seem to be presenting too many problems. Demand is rising, but so is capacity—as last year's double-digit capital outlay gains translate into sizable increases in production potential. Upshot: Operating rates—at least on an overall basis—are likely to remain relatively unchanged, **backing and filling around the 90% level.**

PRICE OUTLOOK: Prodded by continuing advances in manmade fibers, the slow overall rise should persist through the second half. Looking at manmades—tags are already running better than 6% above a year ago—with another 3-4% advance by next fall.



N.A.P.M. business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



KEY ECONOMIC TRENDS

A slowdown isn't a downturn

A modest slowdown in the overall rate of business growth seems inevitable.

Several factors will be contributing to the deceleration. For one, consumers have become a bit more cautious. Witness, for example, the somewhat restrained pace of new auto sales—even in the face of stepped-up financial incentives.

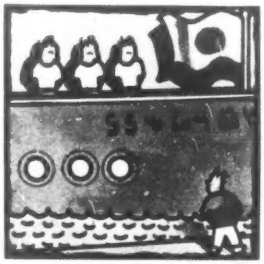
Recent interest rate increases may also be playing a role. These advances that first began in December may finally be having a modest braking effect on overall demand.

But decelerating growth is not the same thing as a downturn. The latter still seems remote as most key indicators remain positive. This is certainly true of the bellwether NAPM Business Barometer (see chart). While down from recent levels, it is still a bit above the neutral 50 mark—and high enough to sustain a GNP real growth rate of around 2.5%.

There are other positive factors around, too. Thus business inventories remain quite low relative to sales—with automobiles being the only notable exception. This insures that, as new orders come in, they will be quickly translated into new production.

Then there is the continuing buoyancy in capital goods—something that reflects supplier efforts to beef up capacity. In any event, non-defense capital orders at latest report, while leveling off, remain far above last year's levels (see chart).

Part of this ordering boom is being fed by exports where the fall-off of the dollar over recent years has made our machinery a lot more attractive to overseas buyers. But export orders are up in other sectors too. Some pretty conclusive proof on this score; An impressive 22% now report gains over the latest month (2.5 times the number who note slippages).



Don't underestimate the impact of this export boom. A new Wharton Econometrics study finds that last year more than half the big 5.7% increase in industrial production (3.3% to be exact) came from the export sector.

Imports, the other side of the trade equation, also offer a reassuring note. Net figures (after exports have been factored out) are still dropping. Indeed, the latest reading is off more than one-third in real terms from the peaks of a few years back (second chart).

That's not to say, of course, that there aren't some problem areas. Aside from the auto situation noted above, housing also leaves a lot to be desired—as rising mortgage rates shut out an increasing number of would-be home buyers.

Not surprising, new housing permits have dropped to near a 1.4 million annual rate—a significant fall from the 1.56 million peak of a few months back (last chart). This, in turn, has prompted a

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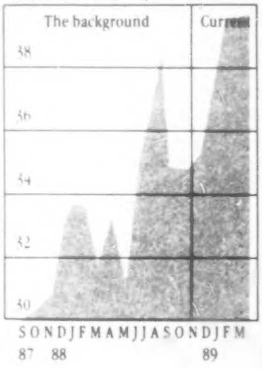
Leading indicators

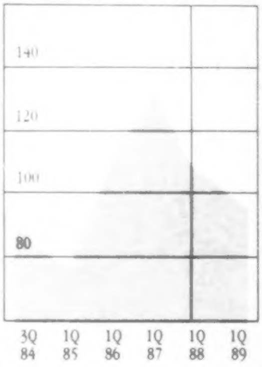
1. Capital goods orders

Billions of $, seas. adj.



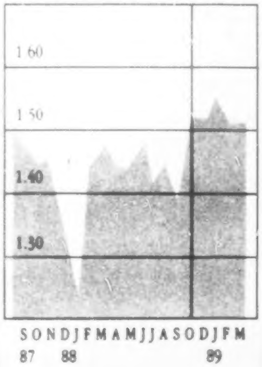
2. Net real imports

Billions of 1982 $, seas. adj. rate



3. Housing permits

Millions, seas. adj. annual rate

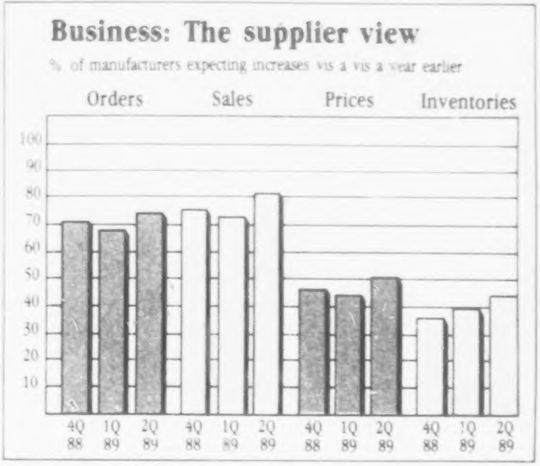


downward revision in 1989 housing start forecasts—to just above 1.4 million units—as contrasted to the 1.6 and 1.5 million unit figures noted for 1987 and 1988, respectively.

Another sign of a construction pause: Contract awards are easing. As one analyst put it, "Whenever interest rates rise, there is usually a brief period when the anticipation of higher-cost financing actually stimulates building. We seem to have passed that point and are now beginning to feel the depressing effect of rising rates on the housing market."

Consumer confidence could be still another economic growth inhibiter. The Conference Board's index here has dropped a bit—though this yardstick still remains considerably above a year ago.

Upshot: Most economists are now predicting slower overall advances—with industrial production gains in the third quarter put only in the 2.5% range—well under the 3.5-4% rate expected during the first six months of the year.


Business: The supplier view

% of manufacturers expecting increases vis a vis a year earlier

Predictions of reduced growth suspect

The nation's corporate executives aren't buying all the recent talk about significantly lower near-term growth.

Quite the contrary, if a new Dunn & Bradstreet survey of 1,500 corporate leaders is to be believed. An eye-opening 81% of reporting manufacturers feel that their sales during the current quarter will be better than a year ago. That compares to the 73% reading of three months ago when a similar question was asked about the first quarter of the year.

But there's one disquieting note: About half of the queried manufacturers expect prices to run ahead of a year earlier this spring. Three months earlier, the comparable price-increase response was only 43%.

Commenting on the shift in price expectations, Joseph W. Duncan, D&B's corporate economist and chief statistician, observes that the uptick was general throughout American business—embracing durable goods suppliers, non-durable goods suppliers and even retailers.

The combination of improving business and rising prices, in turn, is probably why these same people are bullish on profits. Indeed, expectations for stronger earnings are now at their highest levels in five years.

The improved sales outlook reflects similar bullishness in new orders. More to the point: The 74% of manufacturers expecting better bookings this quarter is five percentage points above levels noted during the previous quarter.

Not surprising, improved business expectations are being translated into plans for higher inventories. During the current quarter, for example, some 43% of queried manufacturers were contemplating increases in their holdings—compared to only 39% earlier this year.

But D&B's Duncan sounds a note of caution about these inventory increases—even though they are apparently needed to meet expanding production schedules. This increase, he says, "could prove troublesome later this year. It may be difficult to move goods, if prices continue to climb."

CURRENT PRICES

Valve prices and demand on the rise

Chances are you'll be buying a lot more domestic valves in the years immediately ahead—with U.S. industry demand currently projected to grow at a 6% annual rate (in current dollars) into the early 1990s.

So say analysts at the Freedonia Group who, in a new study, are also forecasting relatively modest valve price increases: The average annual valve tab advance into 1993 is put at only 3.1%.

Generally speaking, automated control and regulating types will show the strongest unit price boosts—as their use in sophisticated process control loops expands. On the other hand, intense foreign-based and

Continued on page 18...

intra-industry competition within the industrial (non-automatic) and construction-related valve markets will hold price hikes in those sectors under the 3% overall average.

Coming back to demand, Freedonia attributes the fair-sized gains to a series of factors—including 1) increased capital spending in the valve-consuming process industries, 2) technology-improved valve designs that are enhancing performance, and 3) an improved global marketing position.

This latter factor, however, won't be nearly enough to erase last year's $400 million trade deficit in valves. The study, for example, sees the U.S. remaining a net valve importer through the forecast period—though the 1993 deficit will drop somewhat (into the $275 million range).

But whatever the source of valves, the biggest demand gains are likely to be centered in the quarterturn industrial valve and solenoid valve segments. Current dollar shipments in both areas are targeted for 7.7% annual increases.

The growth in quarterturns (especially lightweight butterfly and certain ball designs) will result from versatility, ease of operation, and superior sealing capability. These advantages will help quarterturns supplant standard multiturn types of globe, gate, check and related designs. Shipments of solenoid valves, meantime, will grow rapidly because of their cost efficiency and configurability with programmable controllers and microprocessors.

Producer prices stabilizing

Industrial producer price increases seem to be stabilizing—with advances over the past few months averaging out at around 0.5%—or about 6% at annual rate.

A fair amount of the increase can be traced to energy—as the combination of the Alaskan oil spill and OPEC production curbs continues to drive prices up. And further advances in the energy sector seem certain for at least another month—judging from increases in gasoline tags over the past few weeks.

Other energy sectors reporting increases now include home heating oil, diesel fuel, jet fuel, lubricating oil, liquid petroleum gas, electric power and crude petroleum. On the other hand, some recent softness has been noted in both residual fuel and natural gas.

Capital goods also continue to edge up. So far this year, for example, they have been rising at near a 5% annual rate—nothing alarming, but still well above last year's 3.5% average.

Increases here over the past month were recorded in transformers, oil and gas field machinery, paper industry machinery, metal-forming machine tools, office and store equipment and railroad equipment. But motor trucks slipped a bit.

Some advances were also noted in component parts—including electronic devices, bearings, fasteners, and motors and generators.

The raw material picture, however, was more mixed. Generally speaking, durables were stronger than non-durables. But within both groups there were conflicting trends.

In the metals sphere, for example, increases hit copper, precious metals, zinc and steel mill products. But some modest offsets came from declines in both aluminum and lead.

And in the non-durables sector organic chemicals actually declined—pulling the industrial chemical average down with it. Grey textile fabrics and paint materials were also lower. But these were offset by increases in such areas as paper, paperboard, synthetic fibers, raw cotton, and inedible fats and oils.

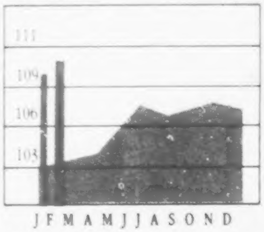
Construction, too, seemed to be moving in several different directions last month. The housing slowdown did manage to put dents in pricing for gypsum, plumbing fixtures, brass fittings, flat glass and wiring devices. But nonferrous wire and cable, fabricated structural metal products and lumber millwork all managed to eke out small advances.

Industrial prices

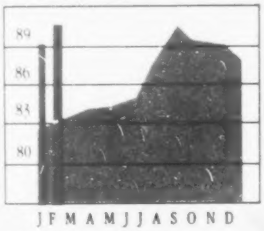
(Index 1982 = 100)

1988 ● ●1989

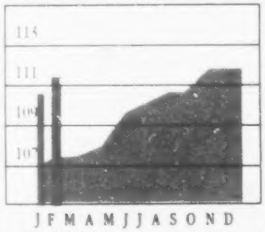
All items



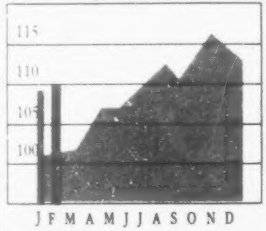
Raw materials



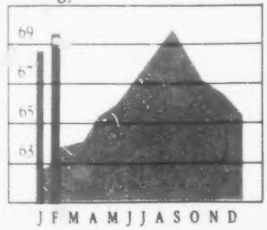
Semifabs, components



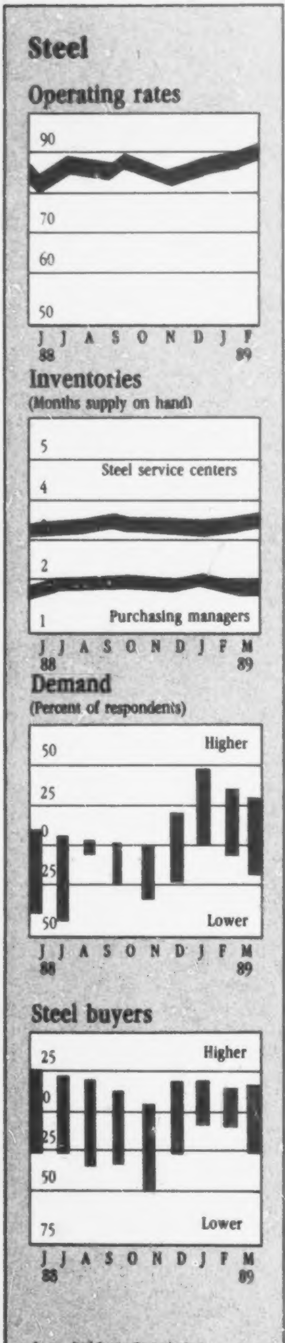
Finished goods



Energy



Source Bureau of Labor Statistics



Steel

Operating rates

Inventories
(Months supply on hand)

Demand
(Percent of respondents)

Steel buyers

Source: Steel Service Center Institute, NAPM Steel Buyers Committee

PROCUREMENT STATUS REPORT

Delivery performance stabilizes

Good news! Delivery performance—as measured by *Purchasing World's* exclusive leadtime index—has stabilized, with any tendency toward stretchout now neatly balanced out by reports of improvement in other areas.

That's what the latest 50 reading for this key index means. And queried buyers say it reflects a combination of factors—including gradually increasing supplier capacities, better buyer-seller liaison and smaller production gains.

The latter factor is emphasized by Robert J. Bretz, NAPM Business Survey Committee chairman, who observes "Virtually all indicators confirm the considerably subdued growth in the first quarter and signal even more modest growth into the second quarter."

Seasonality could also be behind the delivery improvement. According to NAPM historical data, the biggest seasonal improvement normally occurs in April.

And this could be part of the reason why the NAPM delivery performance index, measuring the percentage of buyers reporting slowdowns, is only reading 51.2. That's only fractionally above the neutral 50 mark and the lowest level in over two years.

Also indicative of better times: The number of commodities on the NAPM short supply list is considerably fewer than in past months. Noticeable by their absence this time around are such key raw materials as aluminum, copper, and ethylene.

Electronic components have also become a bit easier. But there are a few exceptions here. Thus, while dynamic RAM problems are all but gone, there is now some concern about static RAMs.

There are other signs, too, that the worst is over as far as procurement woes are concerned. For one, only 20% of buyers are now committing for production materials more than 20 days in advance—down from the 24% reading of just one month earlier.

PMs are also going slower in inventory accumulation. More to the point: the stock accumulation index has been below the neutral 50 mark for three months running—a pretty good sign that buyers can get most of what they need when they need it.

Import prices
(compared to domestic)

Steel buyers
ABOVE 57%
SAME 29%
SLIGHTLY BELOW 14%
SUBSTANTIALLY BELOW 0%

Service centers (carbon)
ABOVE 4%
SAME 8%
5-10% BELOW 9%
10-20% BELOW 0%
OVER 20% BELOW 0%

STEEL SCENE

Steel demand to take breather

Steel demand could be ready to take a breather—if not over the next month or two then certainly by the start of the third quarter.

Buyers responding to the latest NAPM steel survey now are sounding a note of caution. Thus some 27% expect to cut back on their purchases over the next three months—actually more than the 21% anticipate increases.

The latest Steel Service Center Institute (SSCI) survey suggests that distributors, too feel some deceleration may be in the cards. Specifically, the 10-percentage-point gap between those expecting increasing orders (28%) and those expecting declining orders (18%) over the next three months is well under the 37 percentage point and 19 percentage point gaps of two and one months earlier.

Another sign of distributor caution: SSCI president Andrew G. Sharkey notes that only 21% of his members think general business conditions will improve.

Sharkey, however, sounds a positive note about his industry—noting that its inventory levels are "fundamentally in line given the relatively high levels of service center shipments."

Nevertheless, the industry says it would like to see some further reductions in its holdings. Roughly 43% of service center respondents still rate their inventories as being too high.

Buyers tell much the same story. As for current stocks, they put them at the equivalent of a 1.9

month supply.

Also purchasing managers, like their service center brethren, would like to see further paring: 45% say they plan on declines *versus* only a small 3% who feel some increases may be in order.

Buyers plan on such inventory retrenchment despite concern about supplies. Many, for example, report availability problems in such key lines as plate, hot and cold rolled sheet, and coated sheet.

Despite the possibility of such a demand lull, service centers are not that optimistic about getting price breaks from domestic producers.

On the other hand, there's a small, but growing minority who feel some modest steel price slippage is possible.

Buyers would seem to agree. Indeed, only 14% say price breaks on foreign steel are available—and all of these are dubbed "slight."

This month's breakdown

Index: 1982 = 100

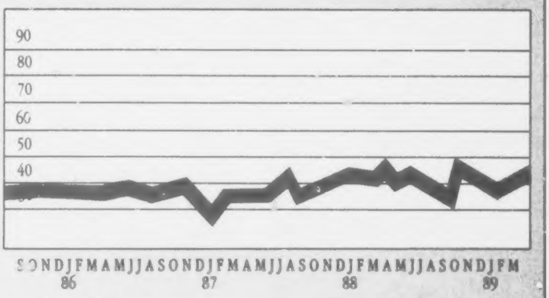
	Latest level (Mar)	% change from: Month ago	Year ago
Bearings	125.5	2.4	13.8
Bolts, nuts, etc.	110.3	0.7	4.6
Chemicals, inorganic	107.6	0.8	9.0
Chemicals, organic	119.5	−1.2	16.5
Concrete products	110.6	0.0	0.7
Corrugated cartons	112.1	0.0	5.7
Cutting tools, small	109.5	0.6	2.8
Electric lamps (bulbs)	123.7	0.0	1.5
Electronic components	119.5	0.3	2.8
Fans and blowers	117.3	0.7	4.5
Foundry and forge products	113.6	0.4	4.9
Fuel oil (residual)	43.5	−0.5	3.8
Furniture, commercial	127.3	0.3	3.7
Gasoline	59.1	3.9	10.3
Glass, flat	110.0	−0.4	0.9
Glass containers	113.9	1.2	1.5
Gypsum products	110.2	−0.6	−2.7
Hand tools	126.3	0.5	5.9
Hand tools, power driven	116.1	0.4	4.8
Industrial furnaces	122.6	0.0	3.5
Integrating and measuring instruments	116.7	−0.3	1.0
Internal combustion engines	112.8	0.1	1.8
Lubricating oil	106.6	0.0	2.8
Lumber millwork	126.4	1.2	4.6
Material handling equipment	110.2	0.2	3.4
Metal containers	109.6	0.0	0.1
Metal mill shapes (nonferrous)	141.9	1.9	15.5
Metal tanks	109.1	0.6	6.6
Motors and generators	129.0	1.2	7.1
Motor trucks	129.0	−1.6	4.2
Office and store equipment	109.4	0.8	2.9
Paperboard	141.6	2.1	8.5
Paper boxes and shipping containers	128.8	0.3	7.2
Paper office supplies	121.2	0.4	7.4
Paint	117.7	0.4	6.6
Plastic resins	140.7	−0.4	13.1
Precision measuring tools	125.4	2.0	5.2
Pumps and compressors	113.6	0.4	6.0
Refractories	119.4	0.2	6.1
Rubber belts and belting	108.8	2.3	3.4
Scales and balances	106.2	0.2	1.1
Steel products	114.7	0.4	6.1
Switchgear	118.3	0.3	5.2
Textiles, synthetic fibers	101.3	0.6	6.5
Textiles, gray fabrics	113.9	−0.6	0.6
Tires and tubes	97.2	−0.4	4.2
Transformers and power regulators	115.0	0.4	6.2
Welding equipment	121.7	0.4	5.3
Wire and cable	147.7	1.2	19.3

NAPM procurement trends

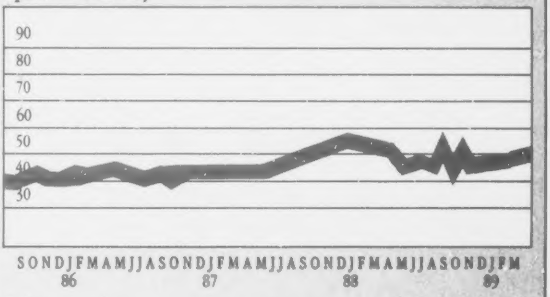
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

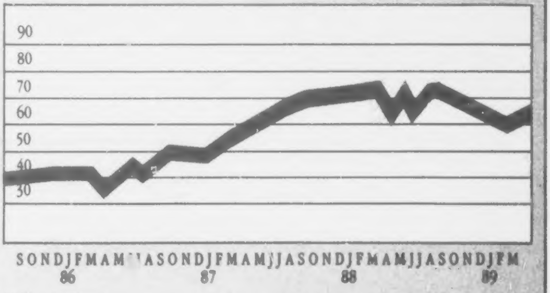
Inventories



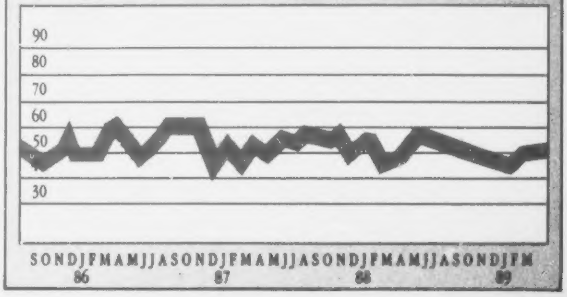
Speed of delivery



Prices



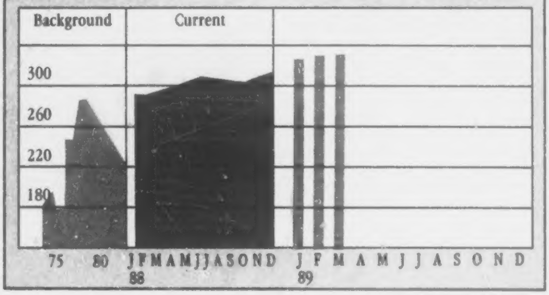
New orders



Raw material price barometer

(Index 1967 = 100)

Last month 334.6
Month before 329.3
Year ago 292.3



Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	18.70	18.70	16.50
Steel, bars, Pitts., cwt.	18.70	18.70	16.50
Steel, bars, C.R., Pitts., cwt.	25.20	25.20	19.45
Steel, plates, Pitts., cwt.	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt.	29.65	29.65	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.935	1.030	1.110
Antimony, N.Y., dealer, lb.	.99	1.00	1.09
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.13	2.17	1.76
Brass, yellow, [sheet], lb.	2.09	2.13	1.71
Cadmium, N.Y., dealer, lb.	7.10	7.90	8.50
Copper, electrolytic, wire bars, refd., lb.	1.50	1.54	1.12
Copper sheet, over 24 in., lb.	2.22	2.26	1.84
Lead, common, N.Y., lb.	.35	.35	.34
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.53
Mercury, 20 fl. lots, N.Y., fl.	295.00	320.00	345.00
Molybdenum, oxide, dealer, lb.	3.72	3.78	3.70
Nickel, cathode, dealer, lb.	6.98	8.20	8.40
Platinum, dealer, oz.	523.00	540.00	533.00
Silver, N.Y., oz.	5.80	5.90	6.42
Tin, N.Y., dealer, lb.	4.40	4.02	3.19
Zinc, Prime West, East St. Louis, lb.	.90	.95	.52
Zinc, die casting alloy, No. 3, lb.	.980	1.030	.545
PAPER			
Uncoated book #3 offset, ton	1020.00	1020.00	890.00
Watermarked bond, ton	1095.00	1095.00	985.00
Gummed sealing tape, carton	18.86	18.84	17.42
Grocery sacks, ton	460.00	460.00	435.00
Solid bleached paperboard, ton	730.00	730.00	650.00
Kraft linerboard, 42 lb., unbleached, ton	440.00	440.00	410.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.283	.283	.280
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.22	1.18	1.22
Cotton middling, 1", N.Y., lb.	.600	.555	.613
Printcloth, 48", 80x80, N.Y., spot. yd.	.500	.500	.540
Army duck, 37", 13 oz., yd.	1.50	1.50	1.51
Blended printcloth, 64", 78x54, yd.	.75	.74	.72
20s combed yarns	1.80	1.80	2.04
Wool 64s, Staple, lb.	3.75	4.18	4.50

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	.400	.400	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	123.00	125.00	100.00
Benzene, petroleum, tanks, Houston, gal.	1.50	1.55	1.15
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.785	.785	.685
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.52	.52	.53
Naphthalene, crude, tanks, lb.	.16	.16	.22
Phthalic anhydride, tanks, lb.	.41	.41	.34
Polyethylene resin, low density liner film grade (market place), lb.	.490	.500	.425
Polypropylene, homopolymer grade (market price), lb.	.460	.460	.495
Polystyrene, general purpose grade (market price), lb.	.585	.585	.580
Polyvinyl chloride, pipe grade (market price), lb.	.435	.440	.400
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.49	.50	.46
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	142.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.95	.95	.80
Xylene tanks, gal.	1.45	1.50	.89
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	326.95	327.44	326.30
Lumber 2x2 pine, mbf, cl	321.47	313.06	332.35
Plywood, plyform, ¾", msf, cl	570.00	550.11	579.45
Plywood, ⅝", msf, cl	370.22	368.33	415.40
Cement, bulk, ton, tl	63.88	63.53	64.44
Sand, ton, cl	7.17	7.18	7.32
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.81	48.69	49.04
Crushed stone, 1½", ton, cl	6.36	6.60	N.A.
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	87.17	86.72	N.A.
Reinforcing bars, whse base; per cwt	21.32	20.85	20.37
Asphalt paving AC-20	108.53	107.51	131.99
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	7.54	7.43	7.14
Concrete sewer pipe, 24", prem. joint, per foot, cl	17.90	17.96	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	20.65	19.30	18.10
Diesel (reseller rack, Chi), gal.	.5735	.5110	.5380
Fuel oil No. 2 (N.Y.), gal.	.5500	.5775	.5100
Fuel oil No. 2 (Gulf spot), gal.	.5070	.4750	.4800
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	22.25	18.75	15.50
Gasoline (reg lded NY), gal.	.7135	.5435	.5335
Gasoline (reg unlded NY), gal.	.6985	.5285	.5210
Kerosene (reseller rack, Chi), gal.	.6590	.5960	.5900
Propane (Mt. Belvieu, Tex), gal.	.2175	.2063	.2435
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	114.00	116.00	113.00
Steel, No. 1 hvy., dlvd., Chi., ton	113.00	113.00	117.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.195	1.160	.925
Copper, No. 2, East, wholesale buy, dlvd., lb.	1.120	1.105	.845
Brass, red, East, wholesale buy, dlvd., lb.	1.155	1.120	.885
Brass, yellow, East, wholesale buy, dlvd., lb.	.610	.610	.425
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.645	.675	.695
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.725	.760	.785
Zinc, old, East, wholesale buy, dlvd., lb.	.380	.380	.240
Lead, clean solids, East, wholesale buy, dlvd., lb.	.235	.210	.205
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	Nom.	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	10.00
Old newspapers, Chi., ton	Nom.	Nom.	15.00
Old white ledger, Chi., ton	75.00	75.00	75.00

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Which way purchasing

by Paul Farrell, editorial director

One can almost plot purchasing's progress from a clerical to a management function by major economic [illegible] in the 20th century. The [illegible] of the [illegible] Wars I and II [illegible]

in the '90s?

be like in the coming decade and the changes that will occur in the function. While the study is still going on, it appears that these characteristics will likely be emphasized:

☐ A clear link between purchasing and an organization's long-term strategy.

☐ A materials management orientation leading to communication, coordination and control between all functions involved in the flow of materials.

☐ Systems for long-term development of people, rather than only one-shot techniques training.

☐ Strategic working partnerships with both internal users and a limited number of suppliers.

☐ A focus on contribution to the long-term bottom line, rather than only short-term profit.

☐ Emphasis on providing optimum service to internal users.

☐ Leverage of purchasing volume, made possible by better information and development of supplier alliances.

☐ Better systems of measuring purchasing performance.

If purchasing develops as described above, these changes will likely take place:

☐ Non-traditional people in top purchasing management jobs. More people will be moving into the top job from marketing, engineering, finance and operations.

☐ Design engineering and purchasing merge in many companies because of emphasis on quality as a competitive weapon.

☐ Technical entry route into purchasing in many companies, made necessary by the meld of design engineering and purchasing.

☐ Emergence of purchasing as materials planning, sourcing and contracting; scheduling and expediting performed elsewhere.

☐ Change of the supplier base because of more single sourcing; shrinking number of vendors; more buyer-supplier alliances; sharing of design information.

☐ Electronic data interchange with suppliers becomes the norm.

☐ Incoming transportation function is absorbed into the buyer's job.

☐ Sourcing includes the complete end product in many instances as a part of overall long-term strategy.

☐ Sourcing of complete end products shifts technology away from the buying firm to the supplier. Such decisions require the right strategy and analysis.

☐ Global sourcing becomes less important as the U.S. dollar declines. The quality advantage of foreign suppliers shrinks as domestic vendors develop more sophisticated quality systems.

☐ Purchasing plays a bigger role in acquisition of services.

The forces that can cause these changes are already in place. It surely will be a challenging decade for purchasing!

Interpersonal skills will be important

E. M. "Marty" Carhart, Director of Purchasing Development, Air Products and Chemicals, Inc.

For a company to survive and prosper in the 1990s, the purchasing manager will have to be able to:

Elaine N. Whittington

Richard L. Jackson

Harold E. Fearon

E.M. "Marty" Carhart

☐ Extend and deepen the function's understanding of the ever-changing needs of customers, while integrating rapidly advancing technology into new and innovative responses.

☐ Provide effective leadership for the total procurement network in order to capture the collaborative power of team members.

☐ Bring global supply markets into focus and develop partnerships with those suppliers who best complement the company's business objectives.

Although the next decade will be change- and technology driven, interpersonal skills will become increasingly important. Leadership in business involves getting things done with large groups of people with diverse interests over whom one never has control.

I believe, therefore, the purchasing manager's ability to succeed will rest on his or her ability to lead through effective persuasion. Purchasing professionals will need to focus on ultimate customer satisfaction, catalyze links between procurement network members and reward team players, incorporate unique talents and knowledge from global sources, and make mutual trust and integrity the linchpin of the purchasing network relationship.

NAPM, profession, will grow together

Elaine N. Whittington, C.P.M., Senior subcontract administrator, Lockheed California Corp.

As we approach the final months of the '80s, it is appropriate to reflect on where purchasing and NAPM have been and what the future holds. This year the association has focused on goals that will move the profession toward an even higher level of excellence in the '90s.

We have begun to update NAPM's strategic plan. It includes the statement that the association wishes to maximize the development and attainment of excellence in all aspects of purchasing, and to optimize American productivity and global competitiveness.

NAPM will concentrate even harder on efficient delivery of product to its members. Volunteers will be more involved in planning and the national staff will be responsible for delivery. We must develop a closer relationship with the affiliates and with individual members for our future success and welfare.

In our crystal ball we see the expansion and success of the Center for Advanced Purchasing Studies (see earlier remarks by Hal Fearon); the acceptance of the Certified Purchasing Manager designation as a yardstick of professional competence; the registration of the C.P.M. in Washington, DC, and the awareness of NAPM by our lawmakers in the national capitol. Finally, we see the growth of the professional purchasing image.

Readers preview the '90s

Surveyed as to what they expect to see happening in purchasing during the next decade *PW* readers responded as follows:

1. Fewer people handling more work—75%
Current personnel/workload ratio remaining the same—13%
Larger staffs to handle increased responsibilities—12%
2. Greater demand for engineers in purchasing—20%
Greater demand for MBAs—35%
Continued preference for business majors with technical backgrounds—45%
3. Dramatic increase in use of high-tech equipment—90%
(Examples cited most often: Personal computers, electronic data interchange, computer-to-computer linkups with suppliers, more powerful software, fax machines, word processors)
4. Increased purchasing participation in corporate planning and strategy—80%
5. Acceleration of present trend toward narrowing of supplier bases—50%
Continuation of present pace—48%
6. Acceleration of present trend toward long-range contracts with fewer suppliers—60%
Continuation of present pace—40%
7. Increase in globally oriented procurement—50%
No great change in current volume of such procurement—50%

More partnering, EDI and overseas buying

Richard L. Jackson, C.P.M., Manager, export purchasing, ICI Americas

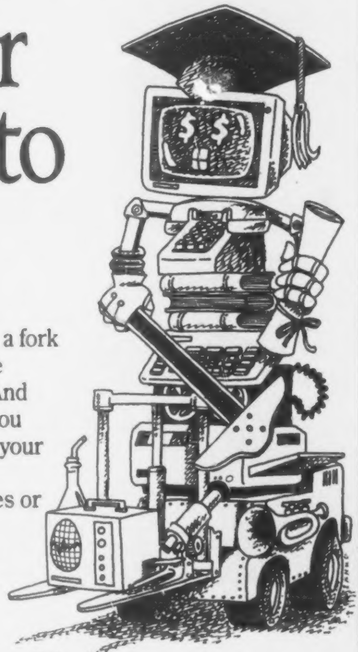
The number of companies using partnering will grow in the next 10 years. In the past, many purchasing managers had to write a justification for using a sole source. Things will be different in the '90s: A management team of purchasing, engineering, production and quality assurance will thoroughly investigate sources to determine the one or two best suppliers.

New methods and equipment will enable purchasing managers to use their time more effectively in decision making and strategic planning. Most departments will be suing electronic data interchange, and thus have immediate access to all relevant details of a transaction.

To help their companies remain competitive, purchasing mangers will have to investigate global sourcing thoroughly.

They will have to know overseas markets, how currency fluctuations affect their costs, how to establish credit and when to use drafts or letters of credit. They will have to be able to establish good working relationships with brokers or forwarders. They should be aware that overseas suppliers prefer—or even require—face-to-face discussions and negotiations on important contracts.

By the end of this century, more than 50% of purchasing jobs will be held by women. Purchasing professionals will be challenged to be the very best they can be. **PW**



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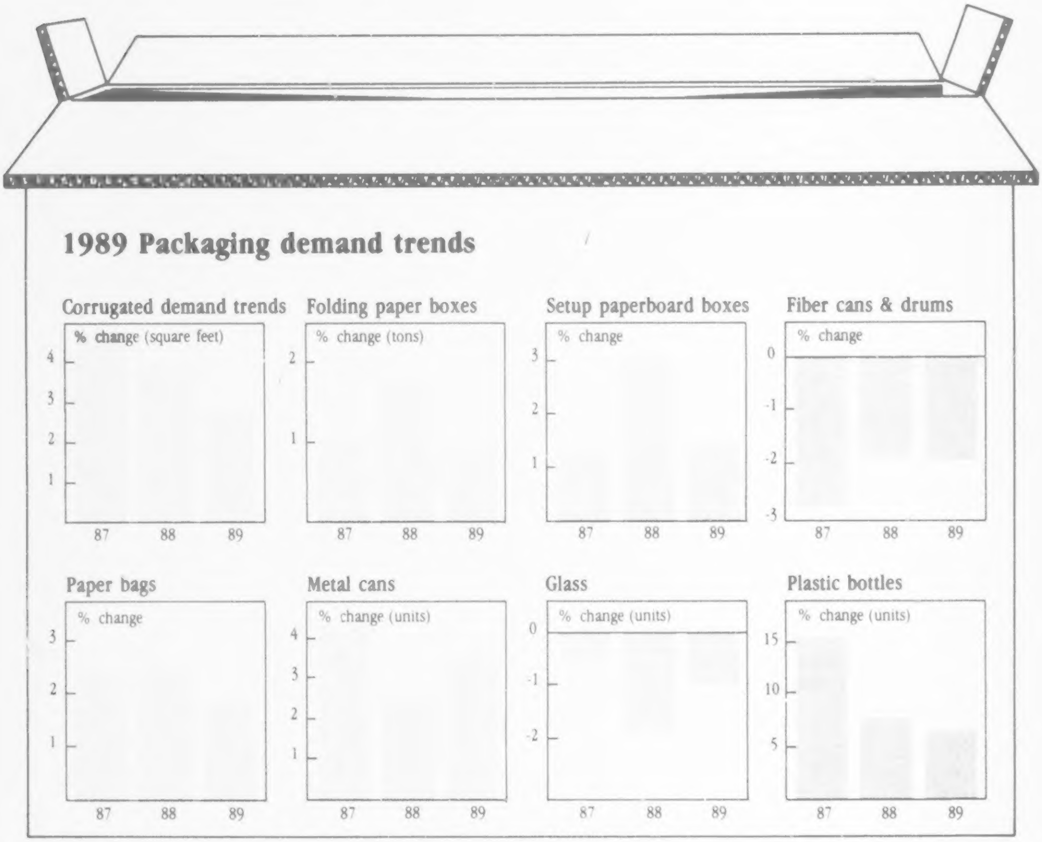
Circle 162 on card

Packaging price increases slow



1989 Packaging demand trends

It's beginning to look like mixed signals as far as 1989 packaging trends are concerned. Demand will be up, but not everywhere; price increases will depend not only on what you buy, but where, and your bargaining clout.

Even cost pressures will be mixed. Thus while linerboard and can stock have recently been boosted, another key material (plastics) has begun to soften.

Also buyers aren't going to take things lying down. A new nationwide *Purchasing World* survey suggests that more and more PMs are questioning increases—often threatening to go to another supplier unless adjustments can be made to the new postings.

On the other hand, the consensus is that some price increases will be inevitable—at least on an overall average basis. The new *PW* survey puts the average 1989 increase in the 4-6% range (see chart)—with corrugated and folding boxes most often mentioned as candidates for near-term price increases.

While hardly Nirvana, this is a lot

better than last year when *PW* readers estimated that their packaging costs advanced 6-7% on a combination of rising raw material costs and big demand gains.

Increases in the government's packaging yardstick (the Bureau of Labor Standards producer price index for containers) should follow this overall deceleration trend. This latter index rose about 5% last year—with current projections suggesting a somewhat slower 4% rate of growth for the current year.

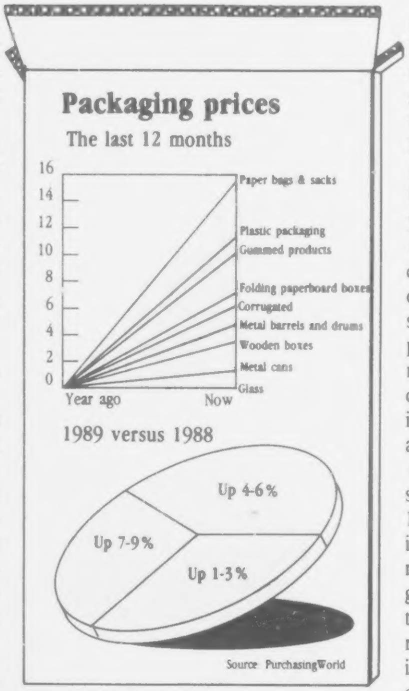
But as noted above, talking in terms of averages can be deceptive. Biggest increases are likely to be in corrugated boxes where a 5-6% boost seems to be shaping up for the year as a whole—as converters seek to pass along a new $30/ton advance in linerboard. But the new corrugated price forecast is still under the big 8.5% increase racked up in this key packaging material last year.

This price rise slowdown in corrugated should not be underestimated—for it makes up the biggest segment of packaging outlays. Dollar shipments last year topped the $17 billion mark. And this year's total should easily rise above $18 billion—even with the relatively modest price hikes that are envisioned.

Not all packaging modes will have the advantage of decelerating price gains. Metal cans, barrels and drums are cases in point: Prodded by higher steel and aluminum costs, prices here are likely to accelerate somewhat this year. *PW* equations, for example, point to a 4-5% rise this year—up significantly from the 1-2% boost of 1988.

Any rise in glass containers, meantime, is likely to be a lot more subdued—on a combination of adequate supplies and continuing losses in plastics. Upshot: prices here will be lucky to advance 2-3%.

Plastic packaging tags, meantime, may advance by a lesser amount. There has already been some flattening out in such resins as polyethylene, polypropylene and polystyrene. And with all these resins expected to be in better supply this year, the moderating trend should continue.



Source: PurchasingWorld

The mixed outlook just noted for prices is also applicable to demand. Here's a more detailed mode-by-mode rundown on what to expect in the way of demand changes—both this year and into the 1990s.

- **Corrugated cartons:** A modest slowdown from last year's 3.5% advance is projected. But the estimated increase (near 2.5%) will still be close to the industry's long-term 2.4% average annual growth rate. All in all some 315 billion square feet of corrugated boxes should clear the market—about 7.5 million more than in 1988.
- **Folding paperboard boxes:** A 1% boost (versus 1.8% in 1988) assures the fourth consecutive year of growth. But totals will still be a bit under the near 2%-increase projected for all paperboard packaging. Long-term growth is put near 1.2% a year.
- **Set-up paperboard boxes:** More modest 1989 growth (1.4% *versus* 3.1% in 1988) is predicated largely on expected smaller gains in consumer disposable income which, in turn, should put a damper on outlays for higher-priced packaged luxury goods. Long-term growth here is estimated at slightly under 1.5% a year.
- **Fiber cans:** Another near-2% decline is forecast—with most of the erosion traceable to an expected sharp drop in composite fiber, as plastic types make continued inroads. But some recovery is seen over the longer pull—though gains into the early 1990s will probably average out around 1% a year.
- **Paper bags:** Some slight 1989 slowdown (1.9% *versus* 2.5% in 1988) is seen. Reason: Slow growth in retail demand as plastic types make more inroads into the large grocery bag and sack market. Long-term growth should remain in this relatively low 2% range—especially if new degradable plastic bags catch on.
- **Metal cans:** Some 116.2 billion units should clear the market this year—a relatively large 3.7% advance compared to the 2.6% increase recorded last year. Spearheading the boost will be increased use of cans in the soft-drink packaging mix and more interest in multipak purchases. Long-term growth, meantime, is estimated near 3% a year.

There are developments on the substitution front here, too—namely increasing interest in steel cans on the part of breweries. Indeed, over the past year interchangeable (aluminum or steel) production lines have been started up which permit the switching from one metal to another if the economics of a conversion so dictate.

One recent study by Wharton Econometrics Forecasting Associates, for example, finds that steel (exclusive of manufacturing and conversion costs) can yield a savings of anywhere from $4-7 per thousand cans.

- **Glass containers:** The 273.4 mil-

Continued on next page...

lion gross projected for 1989 means another 1% decline on top of last year's near-2% slippage. Most of the loss is attributable to conversions to plastic (especially in general packaging).

Factors behind this bottoming out in demand after recent declines: Glass's inherent positive qualities—such as high consumer acceptance, image of purity and prestige, microwavability, barrier properties, and recyclability.

- **Plastic containers:** Growth is still the name of the game here—as the 7.6% unit increase this year drops only slightly from last year's 8.7% spurt. Big gains are seen for carbonated soft drink and "other " beverages (13% for both categories).

In other areas, flexible plastics should continue to make some modest inroads into corrugated cartons—especially shrink and stretch films used to consolidate palletized leads. But on a somewhat more cautious note, it's uncertain whether all the gains projected for plastic packaging types can continue indefinitely—if only because of the rising concern over plastic waste disposal.

But whatever the individual demand patterns, most buyers are pretty much agreed on one point: Supplies should not be a problem.

The big reason for this optimism is the improvement in basic raw material availability. Metals, paper and plastics are all in a lot better supply than they were last year.

This supply improvement, coupled with less upside vendor cost pressure, and a determination on the part of the buyers to keep packaging outlays within bounds, suggests that the worst of the recent packaging price runup is behind us.

As for what buyers are doing—hard-nosed bargaining is at the top of the list.

As one midwestern PM sums it up: "Sure, we'll have to accept some price increases this year. But where last year the gains topped those for general inflation, this year we expect to keep them under the overall U.S. price average." **PW**

Glass filter slashes computer monitor glare

Capable of absorbing 95% of reflected light internal and external to a computer monitor is the Curtis Mfg., all-glass, optically-coated, anti-glare filter. As compared to a filterless monitor screen, use of the filter heightens contrast and character resolution, is sharper and clearer, making text and graphics easier to read.

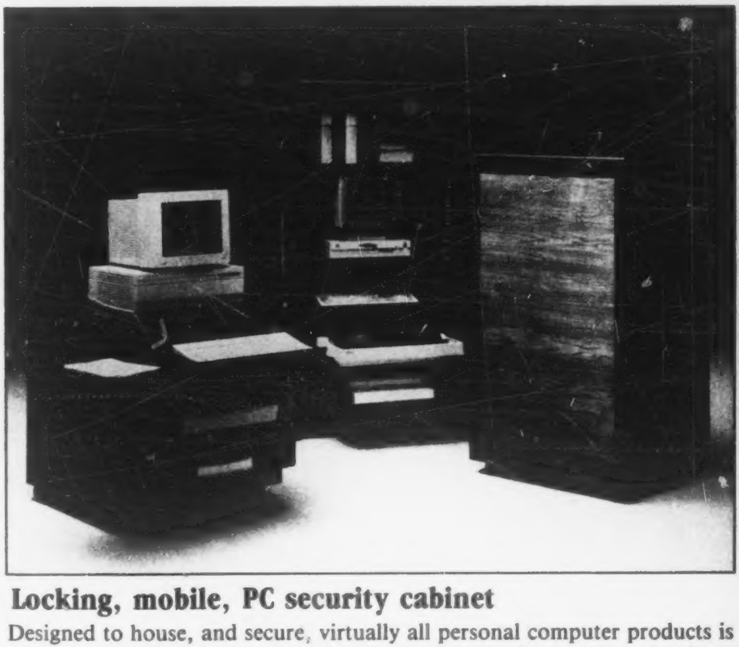
The product comes in seven different sizes to fit more monitors. Velcro® fasteners are provided to install the filter which carries a manufacturer's suggested retail price of $59.95. *Curtis Mfg. Co. Inc.* **Circle 127**

Water/flotation office seating

Water-filled seats and backs are featured in the new office seating group from Aqua Comfort. The initial products include a high back executive chair with tension adjustable knee tilt control and forward lock, a low back executive chair, and a task chair with gas lift, forward tilt and positioning lock.

Special construction of the furniture allows seat-to-lower-back flow of water that is personalized by your shape and size. Just add water for more firmness or remove some for less. The water-filled cushions conform around you.

Five standard colors are available. *Aqua Comfort Inc.* **Circle 130**



Locking, mobile, PC security cabinet

Designed to house, and secure, virtually all personal computer products is the PC security cabinet by Steelcase. It contains keyboard and printer shelves that pull out for easy access to equipment. It may be specified with up to two shelves to accommodate the processor, monitor and storage units. A reference shelf provides additional working space.

The cabinet's "wire manager" routes and protects wires and cables through a built-in, single-switch power strip. Locking tambour doors secure equipment and data when the unit is not in use.

Three sizes of the cabinet are available: 30-, 53- and 65-inches tall. *Steelcase Inc.* **Circle 131**

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PurchasingWorld®

THE BUYER'S MAGAZINE JUNE 1989

"Partnering" cuts steel costs

Third party services

Transportation rates into '91 • Prices: Instant replay of '88

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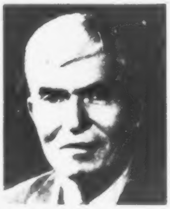
by Robert S. Reichard, editor-in-chief

Is the worst over?

All the current talk about accelerating inflationary pressures looks to be overdone. To be sure, tags are still on the rise. But now, for the first time in months, there are indications that the worst may be over—and that price increases may actually decelerate somewhat over the remainder of the year.



For one, there's a new NAPM buyer survey which finds that industrial prices for the year as a whole are expected to rise by an average of 3.8%. But because these quotes have already advanced 2.9%, this implies something just shy of another 1% increase for the rest of 1989—an increase most purchasing executives would be happy to live with.

Indeed, these same PMs indicate that a shift in the price climate may already be in the making. Thus the latest NAPM price index is clocked in at only 66.5 (50 is neutral). That's down nearly two percentage points from the previous month and the lowest such reading in two years.

Part of the price rise slowdown may be due to the persistent questioning of new price increases by buyers—with more and more PMs demanding dollars-and-cents justification for all new hikes. And this could be one reason why a new survey of ***PurchasingWorld*** readers also indicates that price increases will remain in the tolerable range this year (see accompanying story).

Nor are buyers the only optimistic people. The U.S. Commerce Department, in a new plant and equipment projection, puts 1989 price increases in this key area at only 2.8%. Not bad, considering that demand for capital goods is booming this year.

Another government agency also has some good news. The Federal Reserve Board's new regional survey finds economic growth has slowed down in many areas of the country—something which would seem to indicate an easing in inflationary pressures. Signs of slower growth are reported by the Fed banks in New York, Philadelphia, Cleveland, Richmond, Chicago, St. Louis, San Francisco and Boston. The latter bank adds "price pressures are receding and many contacts note that the region's labor markets seem less tight."

Confirming this last point, the Labor Department's index of employments costs for private industry rose only 1.3% in the first quarter of 1989. That was actually less than the 1.5% rise in the first quarter of last year.

Further good news on the labor front comes from first quarter collective bargaining agreements. They call for average increases of only 3.2% over the first contract year and 3.1% over the lives of the agreements. When contracts were last negotiated for those same workers (in 1986 and 1987), the increases were 3.2% for the first year and 3.5% annually over the contracts' life. In short, no acceleration.

Productivity offsets to such wage hikes aren't all that bad either—especially if you focus on manufacturing. Latest first quarter 1989 figures find factory efficiency rising at a 3.5% annual rate—a figure that would seem to indicate no meaningful upward pressure on unit labor costs.

Foreign competition could be another price inhibitor. Thus import prices have begun to flatten out—probably in response to a somewhat stronger U.S. dollar. Other things being equal, this could make domestic vendors think twice before posting any further price increases.

A few words are also in order about the widely ballyhooed increases in the cost of living. Prices here have been rising rapidly. But it's almost entirely due to energy, food and services. Zero in on non-food commodities, and the rate of rise so far this year is about 4%—pretty much unchanged from year-earlier readings.

To sum up: Continuing price rises? Sure. But still no signs of the runaway inflation that some of our more nervous Nellies purport to see just around the corner.

Little rise for office products

Good news for buyers of office products: Prices won't be going up that much over the remainder of the year.

A new supplier survey by Quill Corp. (a major distributor) suggests that average costs will go up 2.5%. And even that could be an exaggeration since competitive pressures could force these distributors to absorb some of the hikes. As Quill puts it, "The entry of new players such as mass merchants and superstores has created a tremendous emphasis on price."

Keeping the latter in mind, here's what more than 350

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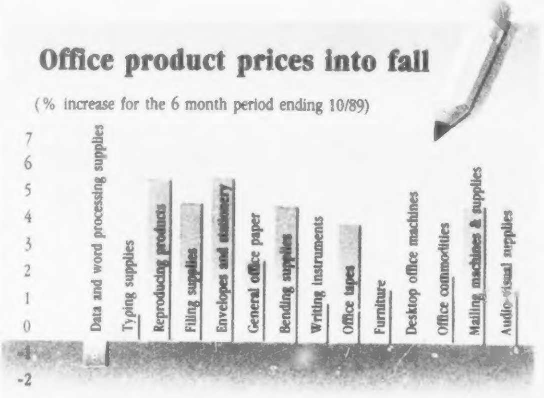


Office product prices into fall

(% increase for the 6 month period ending 10/89) suppliers are telling the Lincolnshire, IL distributor on what to expect in the way of cost increases over the next six months:

- **Data and word processing supplies:** Paper cost advances of 7-10% will be offset by a decline of 8% in disk quotes. Computer ribbons, labels, and cartridges should hold unchanged.
- **Reproducing supplies:** A 6% cost increase is seen because of rising paper costs. Facsimile paper will be up, too—but by a lesser extent.
- **Other paper items:** Envelope and stationery prices at the manufacturing level will jump 6%, but pads, typing paper, and self-stick tapes will move up by a smaller 3%.
- **Writing instruments:** Heavy competition will limit the increase here to just under 1.5%.
- **Furniture:** A 2.2% cost boost is seen—reflecting higher tabs on steel, linerboard and wood.
- **Desktop office machines:** A stable dollar will keep most prices relatively unchanged. One exception: Facsimile machines, where further declines are anticipated.
- **Mailing machines:** This category, which includes scales, paper trimmers and folding machines, will rise 5.2% by year end—in large part due to steel increases.

Average number of truckers used

(based on a 160 firm survey)

What do shippers want?

What shippers want from trucking firms these days—based on A.T. Kearney interviews with 160 major shippers: 1) Fewer but bigger, more reliable carriers. The average buyer will use only 60 carriers next year and less than 50 by 1995. That compares to 80 just two years ago; 2) More personalized attention. Shippers may want big carriers but they want them to behave like mom-and-pop outfits with plenty of customized care; 3) More than just simply freight hauling. Shippers are looking for stepped up distribution help—including more electronic services and data interchange. On the price front, Chicago-based A.T. Kearney finds that shippers would accept a 3-5% rate increase if tied to such service improvements.

Copper is jittery

The red metal remains nervous, with prices continuing to resist any decline much below the $1.20/lb level. One reason: concern about domestic labor contracts which will have to be renegotiated over the next few months. Relatively good brass mill ordering this spring has also helped

Continued on next page...

Zinc outlook improving

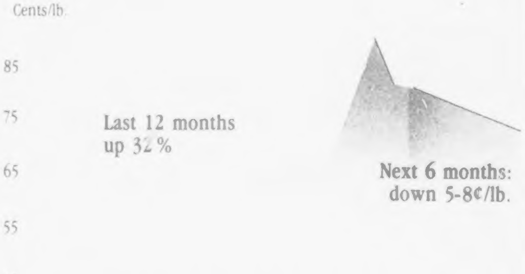
CURRENT SITUATION: Quotes have edged down from their recent 95¢/lb. peaks. But they still remain well above beginning-of-year levels and at pretty much double last year's 43¢/lb. low. Also suggesting a fair amount of firmness has been recent Peruvian labor strife, upcoming North American labor negotiations, and the fact that spot material isn't that easy to find. On the other hand, **buyers are playing their cards close to the vest**—making purchases only as needed and not taking producers up on fixed pricing options.

DEMAND: Domestic slab zinc chewup for the year as a whole could well drop a percentage point or so from last year's estimated 1.115 million metric tons. Reason: Projected slippages in auto and construction demands—sectors which account for about 75% of the metal's overall U.S. usage. And totals for the Free World as a whole will do little more than equal last year's level. Going further out—**the long-term prognosis is for about 1.5% annual gains here in the U.S.**

SUPPLY: Recent tightness should give way to better market balance. Not only is demand flattening out (in contrast to last year's gains), but new production is coming on stream. One source, for example, indicates that some 130,000 tons of new global potential has been added since 1987. And more is on the way—most notably expansion projects in Australia, Canada and the U.S. (the latter being the early 1990 opening of Alaska's Red Dog which will double U.S. zinc mine production). Secondary output is also on the rise.

PRICE OUTLOOK: Some further slippage (beyond that of the past few months) seems almost certain—given the improving supply-demand situation outlined above. The decline, however, should be modest in the months ahead as global stocks remain relatively low. **Best bet: Another 5-8¢/lb. drop by year end.** But even that would leave tags above last year's low.

Zinc prices



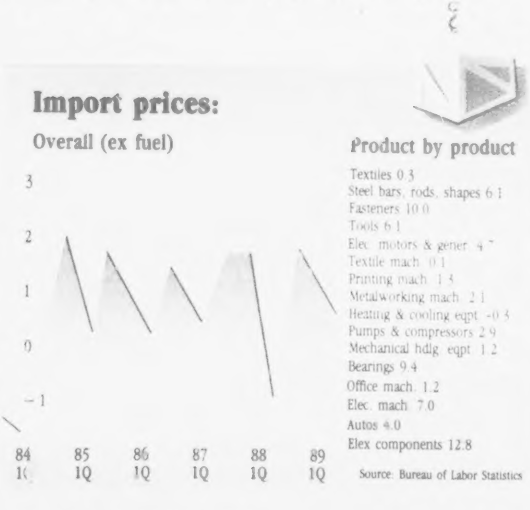
Firm dollar holds down import prices

Import price hikes continue to level off—thanks in large part to a relatively firm U.S. dollar (in March the dollar was actually 2% higher than a year ago on a trade-weighted basis).

In any event, increases (excluding fuel) over the last quarter came to only 0.5%—or only 2% at annual rate. That's well below the 4.9% increase noted over the past 12 months and miles away from the 8.9% advance recorded over the previous 12-month period.

Here's a more detailed rundown on changes over the past three months:

- **Crude materials:** A 2.8% increase during the first quarter, following a 5.8% boost in the previous period, was highlighted by a slowdown in prices for metal ores and scrap. But crude rubber, cork, and wood all turned upward after late 1988 softness.
- **Fuels:** Prices rebounded a hefty 18.3%—more than offsetting decreases in the two previous periods. But despite the hike, averages for imported fuels are still one-third below their 1985 peaks.
- **Chemicals:** The modest uptrend of the past two years persists—with averages up 1.1% over the latest 3-month period. Organics, viewed separately, advanced 2.3%, but plastic resins remained virtually unchanged.
- **Intermediate manufactured products:** A 1.7% rise pretty much matches the 2.0% advance of the previous three months. Copper and aluminum rose 2.1% versus 6.4% in the previous period. But iron and steel and nonmetallic minerals both accelerated—rising 1.5% and 3.9%, respectively.
- **Machinery and transport equipment:** Averages remain basically unchanged compared to the 2.5% boost of the previous period. And tags actually dipped for four major groups—road vehicles, metalworking machinery, general industrial machinery and specialized machinery. But electrical equipment was up 1.1%.



Import prices:

Overall (ex fuel)

Product by product

Textiles	0.3
Steel bars, rods, shapes	6.1
Fasteners	10.0
Tools	6.1
Elec. motors & gener.	4.7
Textile mach.	0.1
Printing mach.	1.3
Metalworking mach.	2.1
Heating & cooling eqpt.	-0.3
Pumps & compressors	2.9
Mechanical hdlg. eqpt.	1.2
Bearings	9.4
Office mach.	1.2
Elec. mach.	7.0
Autos	4.0
Elex components	12.8

Source: Bureau of Labor Statistics

buoy the market. Nevertheless, chances are prices will begin to weaken after mid-year if work stoppages can be avoided—primarily because consumption will slow down a bit due to leveling off in the key auto and construction sectors. Domestic chewup this year is expected to hit only 2.3 million tons—pretty much unchanged from last year's level.

Steel to avoid strikes

The new Bethlehem labor pact suggest that big strikes will be avoided this year. But the cost of the new agreement (20% over 50 months) could put some upward pressure on prices over the longer pull. Not so for the shorter term, as demand begins to tail off (second half shipments will run only in the 38-39 million-ton range—some 2-3 million tons under the first half). This falloff could well knock 2% off the average quote over the remainder of the year—bringing the composite transaction average down to $525/ton.

Office equipment gets smaller

The trend toward smallness is accelerating. New pocket computers for example are hitting the market—some weighing only one pound and at very attractive prices ($399 for the new Atari Portfolio model). The trend is similar in cellular phones, where a new Motorola unit—weighing only 12 ounces and just 8 inches with flipout mouthpiece extended—has just been made available. But the latter product doesn't come cheap—prices range from $2,495 to $2,995 per unit.

Pieces of Mbit DRAMS

Electronic components mix prices

A mixed picture here. The 1Mbit DRAM has dropped down to just under $16 on average—off 14% from a year ago. Nor is that the end of the line—with even steeper drops projected for yearend (to $11) and for all of next year (an average of near $8). On the other hand, tightness is noted in some static RAMs. As for overall demand, a new semiconductor industry forecast suggests a slowing in global chip sales—a 14% gain for this year, well under last year's 38% spurt.

Office space shrinks

The supply of office space is beginning to peak out. And this could spell higher

Continued on next page...

rents and purchase costs somewhere down the road. In any event, the national metro area vacancy rate has eased to 19.7%—off about two percentage points from the high of early 1987. Also indicative of change: completions of space over the latest quarter were off 30%. A similar trend may be in the making for factory vacancies. The latest 6% figure remains unchanged from three months earlier—though the 9% and higher rates continue for such cities as Cleveland, Miami, and New Orleans.

Air transportation needs a look

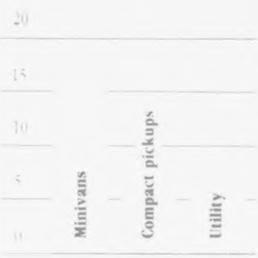
A closer look at negotiated airline deals may be in order. A new study by Topaz Enterprises finds 14.2% of the business tickets it audited early this year were negotiated at rates not offered to the general public. Keep in mind: That's up significantly from the 9.2% reading of last year. Most likely areas where deals can be struck: 1) Meetings for a group of employees traveling from different cities to the same location, and 2) Contract fares for travel on specific routes.

Small parcels go for less

The U.S. Postal Service is slashing its rates for international express mail. A temporary rate of $8.75 is in effect now (for packages up to one-half pound)—with the regular quote of $10.75 targeted to go into effect at midyear. This is under the best discounted rates of private carriers. In any envent, the new rate should be attractive to small business which usually cannot qualify for volume discounts.

Non-auto fleet vehicles

(% of fleets)



Fleets add minis

Minivans, compact trucks, and utility vehicles are now becoming an integral part of commercial fleets. A new Runzheimer survey of 202 transportation managers finds that 17% added minivans to their holdings for the first time last year. And another 6% were doing the same for compact pickups and utility vehicles. Some 50% or more now admit to having at least some or all these types in their fleets.

Chlor-alkalis

Off-list tags for soda ash are moving up $15/ton. Behind the advance: tight supplies, strong demand and relatively low stocks. But things should begin to improve as output is gradually stepped up.

Resin prices ease

CURRENT SITUATION: Markets have eased off from last year's hectic pace. True, tonnage gains are still being racked up. But for the most part, they're considerably smaller than those reported in 1988. More important for buyers, **better supply-demand balance has begun to impact on prices—with even a few modest declines popping up in key commodity resins.** Examples: Current prices for high- and low- density polyethylene (HDPE and LDPE) are both lagging late 1988 highs by about 7%. Similar easiness has appeared in polypropylene (PP) which is off by an even more impressive 12% and in polyvinyl chloride (PVC) where spotty discounts have lowered tags to near 42¢/lb.

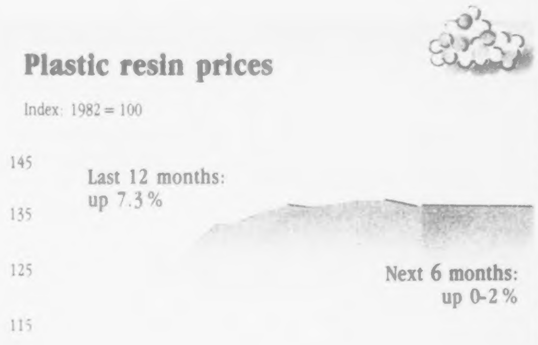
DEMAND: Part of the current respite is probably due to some inventory paring rather than any drop-off in consumption. As such, gains in commodity thermoplastic resins are expected to **pretty much equal last year's 3.25% advance.** HDPE looks to rise about 5%—well above last year's flat pattern. And fractional acceleration is seen for PP (to 6%), and PS (to 4%).

SUPPLY: Last year's tightness has all but disappeared. And the easiness should persist as a good chunk of new capacity comes onstream this year—12% in the case of PP and lesser (though still impressive) additions for PS (10%), HDPE (8%), and PVC (8%). Bigger-than-demand capacity gains are also indicated for LDPE (6%). As such, operating rates in all areas will decline with the exception of ABS. And even here a small 2% rise (to 82%) suggests clear sailing.

PRICE OUTLOOK: Don't count on any near-term downturn—despite the improving supply/demand outlook. Reason: The basic petrochemical building blocks that go into these resins will hold strong (a reflection of recent advances in crude oil). Long term, however, some easiness is likely—probably by early next year.

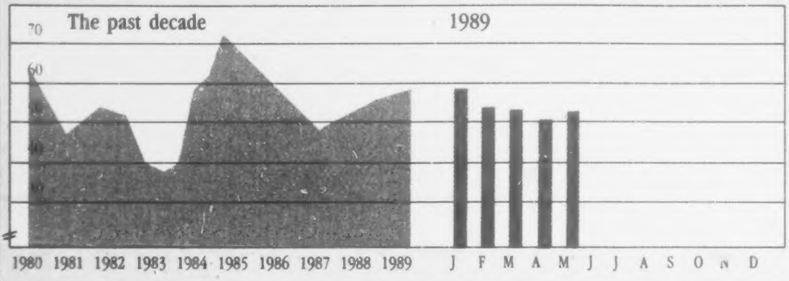
Plastic resin prices

Index: 1982 = 100



N.A.P.M. business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



KEY ECONOMIC TRENDS

Business upturn still on its feet

Business may have slowed down a bit. But as yet there's precious little evidence to indicate that the now 7-year-old economic upturn is on its last legs.

For one, there's the still-positive N.A.P.M. Business Barometer. The latest 53 reading (50 is regarded as neutral) is below recent peaks. But it's actually better than it was in the previous month—the averages have remained pretty much unchanged since the beginning of the year.

Taking off on this, N.A.P.M. analysts figure that year-to-date readings are consistent with real GNP gain of 2.5%—not all that much under the 3.9% advance racked up last year. Also worth noting: This 2.5% estimate is the one that economists say is needed to keep inflation from getting out of hand.

Another encouraging sign is the continuing strength in plant and equipment. Take a look at capital appropriations (a lead indicator of future spending in this sector). Totals—as shown in the first chart on the right—took a giant lead forward over the latest 3-month period.

And it makes a lot of sense. With 1) operating rates not much under preferred levels, and 2) cash flow still on the rise—more and more firms are beginning to up their estimates to about a 6% real gain for 1989.

A continuing low stock/sales ratio in the factory sector is still another indication of underlying economic strength. If previous experience is any indicator, this measure starts to rise in the closing stages of a business upturn.

But so far this has not happened. The latest reading here is put at 1.58 (center chart, right). Back in 1982 during the last recession, the figure was up near 1.95.

What it means is that buyers—with a big assist from just-in-time inventory planning—are keeping a weather eye on stock levels. This, in turn, assures that any future new orders will quickly be translated into new production.

Interest rates, which seem to be stabilizing rather than continuing to rise also have to be regarded as a positive factor. It suggests that the Fed is now willing to wait a while before tightening up to inflationary pressures.

That's not to say that there aren't some weak spots. Thus exports, while still rising, are not racking up the big gains of 1988. Part of this is due to a firming dollar—with the fact that all the easy gains have already been made probab-

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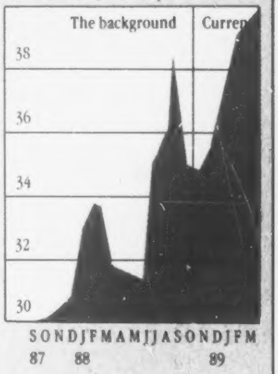
Leading indicators

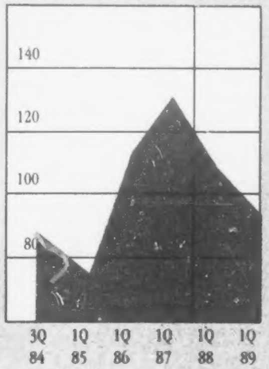
1. Capital goods

Billions of $, seas. adj. (Nondefense)



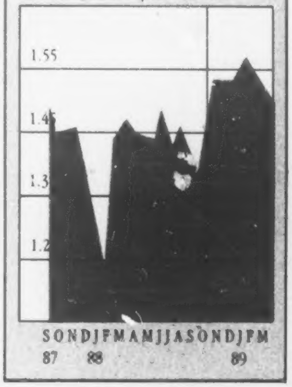
2. Net real imports

Billions of 1982 $, seas. adj. rate



3. Housing permits

Millions, seas. adj. annual rate



ly also playing a role.

This slowdown is confirmed by the fact that only 20-30% of queried N.A.P.M. members say exports are still on the rise. While certainly above the 5-10% reporting declines, the new figures are considerably below the peaks reported last year.

Another GNP growth inhibitor: Consumers may be getting more cautious. Consumer confidence, while not all that weak, is no longer rising. One reason could be higher interest rates which have made people think twice before committing for big-ticket items. Higher mortgage rates have impacted on housing, too.

All this suggests declines both in autos and housing markets this year. Auto sales could drop a half million units to near 10 million. And housing starts will do well to hit 1.45 million (vs. near 1.5 million in 1988).

These latter weaknesses have to be weighed against the strengths noted earlier. It suggests that gains will be harder to come by. Not surprising, PurchasingWorld's latest forecasts call for only a 1-2% annual rate of advance in industrial production over the rest of the year.

As plant managers see it

Plant managers are optimistic about near-term price and demand trends.

On the inflation front, a new Dun & Bradstreet survey of 1,500 factory executives finds that fewer now see cost increases over the next 12 months. Specifically, a D&B index, which reflects the percentage anticipating increases less the percentage expecting declines, now registers only 49—down significantly from the 55 reading of the previous two quarters.

This, in turn, has prompted some deceleration in another index that measures selling price expectations. The latest reading here is 56—down from the 58-59 levels of the past two quarters.

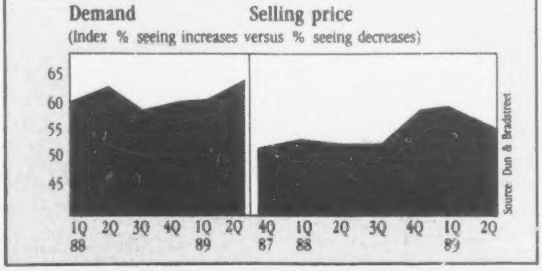
The above, in effect, would seem to debunk all the current talk about accelerating inflation. As Joseph W. Duncan, D&Bs corporate economist puts it, "The expected decline in costs, as well as continued competition from foreign firms, should slow increases in selling prices late this year."

A unit labor cost index (reflecting current experience rather than expectations) also points to a slowly improving price picture. Specifically, the 25 index reading here is two percentage points under the 27 level of the previous quarter and only fractionally above a year ago.

As for factory demand, the new survey suggests that fears of a production slowdown may be unfounded. Plant managers' expectations for the next 12 months reveal an index of 64—actually above the 60-61 reading of the previous two quarters.

Duncan, commenting on this, says "plant managers are confident that the manufacturing boom will continue into 1990." He adds that this key barometer of overall economic activity now stands at the highest point since the survey was started in late 1987.

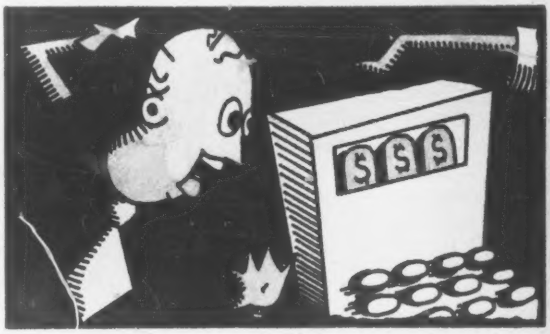
A plant managers' view



Source: Dun & Bradstreet

CURRENT PRICES

Prices remain modest



Looks can sometimes be deceiving.

Industrial producer price averages took off last month—advancing a full percentage point. But a major portion of the increase was due to energy. Indeed, eliminate this category and the rise remains in the relatively modest range of the previous few months.

Also on the encouraging side. Some of the basic raw material tags—regarded as grass roots indicators of underlying inflation—actually turned softer. And capital equipment—which had been rising earlier this year—remained virtually unchanged at last report.

The impact on overall energy price averages can best be appreciated by looking at the magnitude of the increases here. Thus the overall fuels and energy category jumped by more than 6%. And if you zero in on the major oil product (gasoline), the increase comes to an eye-opening 19.5%.

The above is all due to the recent spurt in crude oil tags. But the latter has to be regarded as a one-shot affair. In fact, judging from the current leveling in crude and talk of some late 1989

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glut—these prices could be turning down after mid-year.

The raw material picture, as suggested above, is also reassuring as the big three nonferrous metals (copper, aluminum and zinc) all declined last month. So did nonferrous scrap, nonferrous ore and most nonferrous metal shapes. And on the steel side, prices remained virtually unchanged after removing seasonal influences.

This, in turn, helped push the overall durables manufacturing material index down by more than 1%—a welcome change from the steady tattoo of 1% boosts noted during each of the previous few months.

Then too, fears of acceleration in the equipment sector—in response to a continuing capital investment boom—seem to have been overdone. Averages actually held pretty steady—as decreases in autos, light motor trucks, office and store equipment and medical equipment offset increases in railroad equipment, mining machinery and metalforming machine tools.

Even the runups in industrial chemicals and synthetic fibers have to be taken with a couple of grains of salt. They reflect higher crude oil—and as this key cost item peaks out so will these tags.

True, some other areas—notably paper, building materials and packaging (both metal and glass) all turned up. But by and large, price analysts feel we've seen the worst of the runup—with smaller increases likely through summer and fall.

The price of security

Demand for security surveillance equipment shows no signs of letting up—with average annual real advances over the next five years put in excess of 6%. That's more than twice the rate expected for overall GNP over the same period of time.

But prices, despite this booming demand, should remain quite subdued. The average tab, for example, is projected to rise by about 1.8% a year—as increases are held down by competitive pressures and the increasing usage of sophisticated electronic devices.

HELP
WANTED

The new forecast, worked up by The Freedonia Group of Cleveland, also suggests that electronic article surveillance (EAS) equipment will lead the pack. Shipments here are expected to increase nearly 17% a year in current dollar terms through 1993. Lesser, though still impressive, 6-7% annual dollar gains are seen for both electronic alarm systems and closed-circuit television equipment.

Virtually all end-use groups will share in the gain. The industrial/transportation market, for example, will be helped by economic expansion in the manufacturing sector. On the other hand, the highly mature financial services area will be limited by industry consolidation.

The commercial sector, meantime, will receive stimulus from the cultivation of EAS markets in hard goods retailing, and further penetration in soft goods retailing. And in the institutional sector, gains are expected (despite funding problems) as systems price/performance tradeoffs improve.

Another trend worth noting: Throughout the forecast period, the operative technological concept will be systems integration—both between distinct security functions and with multiparameter computer-based environmental control and building management systems.

PROCUREMENT STATUS REPORT

Things are looking up

True, a buyer's market is still nowhere in sight—and tight situations are still reported in several areas. But now for the first time in years, there seems to be a light at the end of the tunnel.

Thus, steel, nonferrous metals and some semiconductors are a little easier to get. Ditto, a growing number of chemicals, most plastic resins and several paper lines.

That's not to say, of course, that there aren't still some problems. Bearings,

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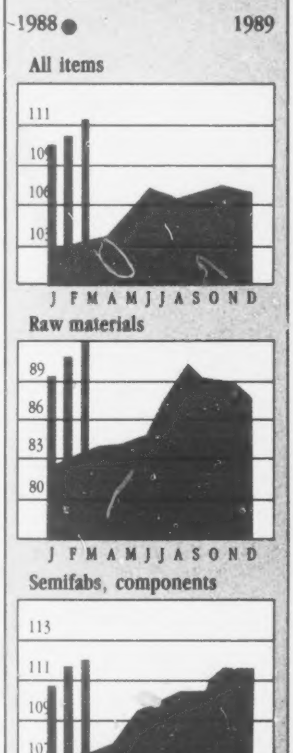
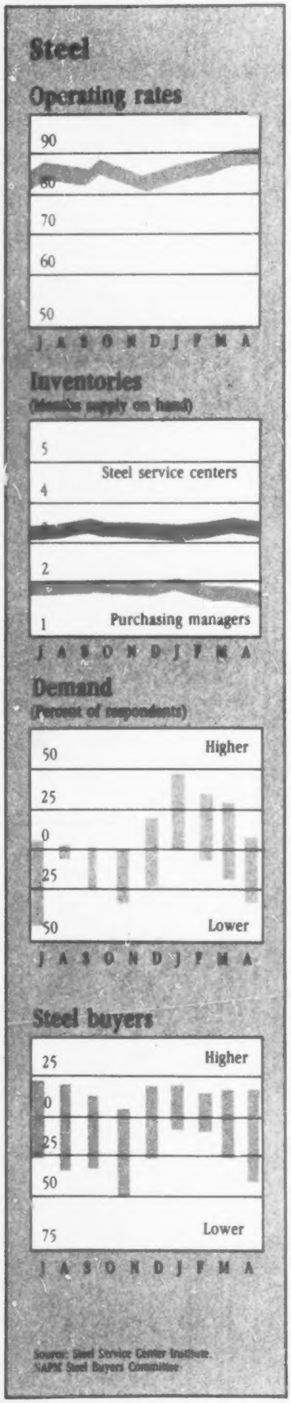
Industrial prices

(Index: 1982 = 100)



Source: Bureau of Labor Statistics



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

for example, remain a headache (see accompanying story). And shortages persist in such lines as synthetic fibers, chloralkalis and even some types of finished equipment.

But the thing to remember is that the short supply list isn't nearly as long as it was at the beginning of the year. And it shows up in PW's exclusive leadtime index where, for the second month in a row, the number of purchasing managers reporting stretchouts were balanced by an equal number reporting narrowing leads.

NAPM, which monitors slower and faster deliveries, tells much the same story. Specifically, the 11% reporting speedups is the largest such percentage in years. And while this still falls short of the 15% noting slower deliveries, the gap has narrowed to a rather insignificant 4%.

As one purchasing executive sums it up: "The combination of slowly rising capacity and slowly decelerating production gains has to help free up currently tight markets. It won't happen overnight, but by year end or early 1990 I think overall operating rates will be averaging 1-2 percentage points under current levels—enough of a change to make a difference."

Import prices

(compared to domestic)

Steel buyers

ABOVE 53%

SAME 25%

SLIGHTLY BELOW 22%

SUBSTANTIALLY BELOW 0%

SERVICE CENTERS (carbon)

ABOVE 7%

SAME 88%

5-10% BELOW 5%

10-20% BELOW 0%

OVER 20% BELOW 0%

STEEL SCENE

Steel demand will soften

A slowdown in steel demand may not be that far off. At least that's what new surveys by the NAPM Steel Buyers Group and the Steel Service Center Institute (SSCI) seem to be signaling.

On the buyer front the number seeing declines in their receipts of steel over the next three months now comes to 37%—nearly double the 20% who anticipate increases. That's a gap of 17 percentage points—up substantially from the six percentage point gap of one month earlier.

The SSCI figures tell pretty much the same story. Indeed, the difference between those anticipating declines in new orders over the next three months (33%) and those betting on gains (9%) is now up to 24 percentage points.

Taking off on this, Andrew G. Sharkey, SSCI president, now says he expects his members' shipments to be 3-4% under the record 23.5 million ton level of 1988. He adds that while there is still good volume, there is simply less urgency—not everything must be delivered "yesterday".

The steel executive also has some comments on carbon flat-rolled products—noting that these items are likely to experience a short-term "further erosion" in sales to the automotive and appliance markets—as direct mill sales to these markets increase.

Sharkey, however, is more optimistic on market share for other carbon and stainless product shapes—bars, plates, structurals and tubular products. Share of these latter items, he adds, should stabilize and resume a modest growth pattern.

Improving market balance, meantime, is beginning to cut back on fears of shortages. True, many buyers still express some concern. But the percentage is down from 65% a month ago to only around 50% currently. Indeed, about the only serious problem at this time (mentioned by 14% of the respondents) is coated sheet.

The better market outlook, combined with expectations of some demand weakness, is also prompting some second thoughts about inventories. On the SSCI front, for example, 52% feel their stock levels are too high—nowhere near the 5% who would still like to beef up their holdings.

And this despite the fact that inventories are not all that high in terms of near-term historical perspective. The latest 3.34 month SSCI level, for instance, compares to a 3.60 level early last fall.

But slower demand and inventory retrenchment could have some positive repercussions on prices. In any case, the SSCI survey shows 16% anticipating declines in their steel replacement costs over the next six months. That compares to

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11% last month and only 5% the month before that.

This feeling is, incidentally, backed up by new forecasts by Wharton Econometrics which suggest some modest price erosion over the next two quarters. Specifically, Wharton's average transaction price (currently put at near $539/ton) is projected to fall to $528 and $521 in the third and fourth quarters, respectively.

About the only disappointing news on the price front is in the import sphere where good overseas demand and a still relatively weak dollar continue to rule out bargains *vis a vis* domestic quotes. Thus the overwhelming number of service centers say there's little difference in quotes. And when it comes to buyers, more still say foreign goods are higher (76%) than lower (24%).

This month's breakdown

Index: 1982 = 100

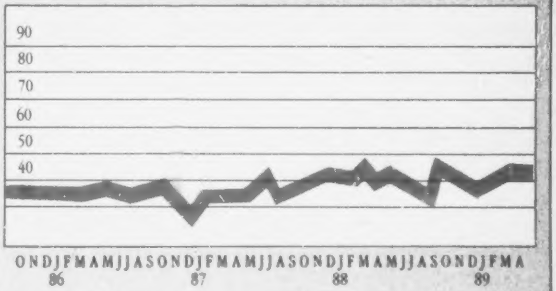
	Latest level (Apr)	% change from: Month ago	% change from: Year ago
Bearings	125.7	0.2	13.2
Bolts, nuts, etc.	109.1	−1.1	2.7
Chemicals, inorganic	107.7	0.1	8.2
Chemicals, organic	120.8	1.1	16.2
Concrete products	110.8	0.2	1.0
Corrugated cartons	112.1	0.0	3.7
Cutting tools, small	109.6	0.1	2.4
Electric lamps (bulbs)	124.0	0.2	1.7
Electronic components	119.3	−0.2	2.6
Fans and blowers	117.4	0.1	4.4
Foundry and forge products	114.0	0.4	4.8
Fuel oil (residual)	47.3	8.7	16.8
Furniture, commercial	127.6	0.2	3.3
Gasoline	70.6	19.5	24.3
Glass, flat	110.0	0.0	0.8
Glass containers	116.3	2.1	3.7
Gypsum products	108.7	−1.4	−2.7
Hand tools	126.9	0.5	5.3
Hand tools, power driven	116.0	−0.1	4.0
Industrial furnaces	123.3	0.6	4.0
Integrating and measuring instruments	117.2	0.4	1.0
Internal combustion engines	113.2	0.4	2.2
Lubricating oil	107.4	0.8	4.1
Lumber millwork	127.5	0.9	5.2
Material handling equipment	110.5	0.3	3.6
Metal containers	110.2	0.5	0.1
Metal mill shapes (nonferrous)	140.6	−0.9	10.9
Metal tanks	110.2	1.0	6.4
Motors and generators	128.8	−0.2	7.0
Motor trucks	128.7	−0.2	4.0
Office and store equipment	108.6	−0.7	2.1
Paperboard	143.8	1.6	8.4
Paper boxes and shipping containers	128.9	0.1	5.8
Paper office supplies	122.2	0.8	8.5
Paint	118.4	0.6	6.9
Plastic resins	141.3	0.4	10.7
Precision measuring tools	125.3	−0.1	5.1
Pumps and compressors	114.2	0.5	5.8
Refractories	119.6	0.2	5.4
Rubber belts and belting	113.0	2.2	7.2
Scales and balances	106.2	0.0	0.3
Steel products	114.9	0.2	4.7
Switchgear	118.3	0.0	5.0
Textiles, synthetic fibers	104.0	2.7	8.0
Textiles, gray fabrics	114.1	0.2	0.2
Tires and tubes	97.1	−0.1	3.6
Transformers and power regulators	115.3	0.3	6.5
Welding equipment	122.3	0.5	5.3
Wire and cable	147.3	−0.3	19.3

NAPM procurement trends

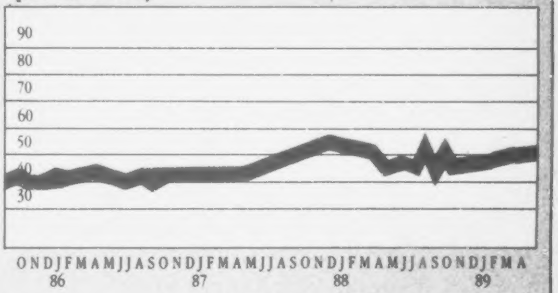
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

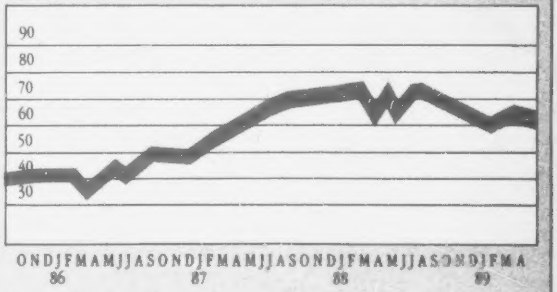
Inventories



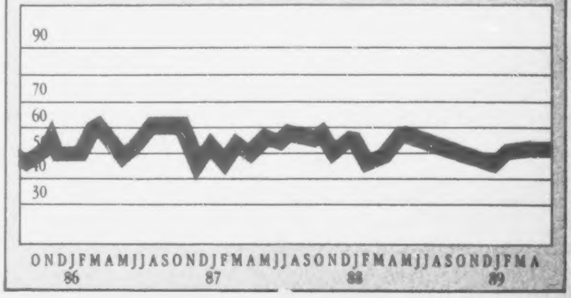
Speed of delivery

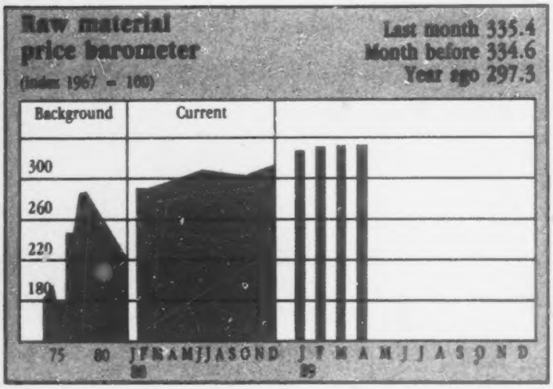


Prices



New orders





Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, divd. Phila., cwt., merchant quality	18.70	18.70	16.50
Steel, bars, Pitts., cwt.	18.70	18.70	16.50
Steel, bars, C.R., Pitts., cwt.	25.20	25.20	19.45
Steel, plates, Pitts., cwt.	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt.	29.65	29.65	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.990	.935	1.080
Antimony, N.Y., dealer, lb.	.95	.99	1.08
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	2.02	2.13	1.66
Brass, yellow, [sheet], lb.	1.98	2.09	1.61
Cadmium, N.Y., dealer, lb.	7.10	7.10	7.90
Copper, electrolytic, wire bars, refd., lb.	1.39	1.50	1.02
Copper sheet, over 24 in., lb.	2.11	2.22	1.74
Lead, common, N.Y., lb.	.36	.35	.34
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.53
Mercury, 20 fl. lots, N.Y., fl.	295.00	295.00	345.00
Molybdenum, oxide, dealer, lb.	3.65	3.72	3.58
Nickel, cathode, dealer, lb.	6.50	6.98	7.95
Platinum, dealer, oz.	534.00	523.00	517.00
Silver, N.Y., oz.	5.64	5.80	6.37
Tin, N.Y., dealer, lb.	4.85	4.40	3.21
Zinc, Prime West, East St. Louis, lb.	.85	.90	.57
Zinc, die casting alloy, No. 3, lb.	.930	.980	.615
PAPER			
Uncoated book #3 offset, ton	1020.00	1020.00	920.00
Watermarked bond, ton	1095.00	1095.00	1070.00
Gummed sealing tape, carton	18.86	18.84	17.42
Grocery sacks, ton	495.00	460.00	455.00
Solid bleached paperboard, ton	780.00	730.00	685.00
Kraft linerboard, 42 lb., unbleached, ton	440.00	440.00	410.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.282	.283	.283
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.22	1.22	1.22
Cotton middling, 1", N.Y., lb.	.634	.600	.604
Printcloth, 48", 80x80, N.Y., spot. yd.	.500	.500	.510
Army duck, 37", 13 oz., yd.	1.40	1.50	1.51
Blended printcloth, 64", 78x54, yd.	.765	.750	.660
20s combed yarns	1.85	1.80	2.00
Wool 64s, Staple, lb.	3.75	3.75	4.50

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	.400	.400	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	123.00	123.00	100.00
Benzene, petroleum, tanks, Houston, gal.	1.49	1.50	1.03
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.785	.785	.685
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.52	.52	.53
Naphthalene, crude, tanks, lb.	.16	.16	.22
Phthalic anhydride, tanks, lb.	.41	.41	.34
Polyethylene resin, low density liner film grade (market place), lb.	.480	.490	.465
Polypropylene, homopolymer grade (market price), lb.	.450	.460	.515
Polystyrene, general purpose grade (market price), lb.	.585	.585	.580
Polyvinyl chloride, pipe grade (market price), lb.	.430	.435	.400
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.49	.49	.45
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	142.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	.95	.95	.87
Xylene tanks, gal.	1.45	1.45	.87
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	329.50	326.95	327.05
Lumber 2x2 pine, mbf, cl	316.50	321.47	327.15
Plywood, plyform, ¾", msf, cl	592.28	570.00	579.35
Plywood, ⅝", msf, cl	362.94	370.22	414.45
Cement, bulk, ton, tl	63.97	63.88	65.01
Sand, ton, cl	7.12	7.17	7.32
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.81	48.81	49.46
Crushed stone, 1½", ton, cl	6.36	6.60	N.A.
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	89.10	87.17	N.A.
Reinforcing bars, whse base; per cwt	22.64	21.32	20.65
Asphalt paving AC-20	108.53	108.53-	129.30
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	7.81	7.54	7.14
Concrete sewer pipe, 24", prem. joint, per foot, cl	18.14	17.90	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	20.05	20.65	17.50
Diesel (reseller rack, Chi), gal.	.5325	.5735	.5050
Fuel oil No. 2 (N.Y.), gal.	.5162	.5500	.5125
Fuel oil No. 2 (Gulf spot), gal.	.4720	.5070	.4650
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	21.75	22.25	16.50
Gasoline (reg lded NY), gal.	.700	.714	.541
Gasoline (reg unlded NY), gal.	.6875	.6985	.5825
Kerosene (reseller rack, Chi), gal.	.6130	.6590	.5540
Propane (Mt. Beivieu, Tex), gal.	.2050	.2175	.2463
SCRAP MATERIALS			
Steel, No. 1, hvy., divd., Pitts., ton	114.00	114.00	108.00
Steel, No. 1 hvy., divd., Chi., ton	113.00	113.00	111.00
Copper, No. 1, East, wholesale buy, divd., lb.	1.125	1.195	.890
Copper, No. 2, East, wholesale buy, divd., lb	1.025	1.120	.795
Brass, red, East, wholesale buy, divd., lb.	1.085	1.155	.850
Brass, yellow, East, wholesale buy, divd., lb.	.620	.610	.425
Alum., old sheet/cast, E., wholesale buy, divd., lb.	.655	.645	.620
Alum., mixed clip., E., wholesale buy, divd., lb.	.735	.725	.705
Zinc, old, East, wholesale buy, divd., lb.	.38	.38	.24
Lead, clean solids, East, wholesale buy, divd., lb.	.210	.235	.210
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	Nom.	20.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	5.00
Old newspapers, Chi., ton	5.00	Nom.	15.00
Old white ledger, Chi., ton	75.00	75.00	75.00

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

'89 prices: instant replay of '88

The nation's industrial buyers remain cautiously optimistic about holding the line on price increases.

Sure, virtually every PM queried in a new nationwide PW survey expects to pay more for their purchase mix this year. But, by and large, the consensus is that these increases won't be any worse than they were in 1988.

Specifically, the average advance is put at nearly 5%—the same as last year. And while some respondents do see modest acceleration in the rate of rise, they are pretty much being offset by others who see smaller-than-1988 boosts.

But there could be differences in increases—depending upon the product or service being purchased. By far the biggest increase (near 7%), for example, is seen for the energy group, reflecting to a large extent the recent runup in crude oil.

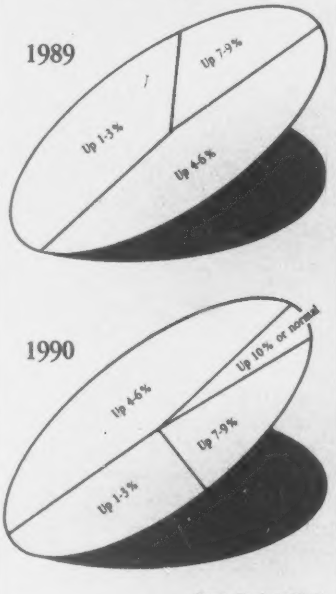
Next come the 5.6% and 4.8% hikes anticipated for raw materials and components, respectively—followed by a 4% increase in freight and a 3.6% hike for machinery and equipment.

And the best showing, as far as buyers are concerned, will be in the office equipment and supply area where only a 1.5% advance is contemplated. Much of this, however, represents advances in paper-related products—in contrast to electronic office equipment where tags are actually expected to edge lower.

On an item-by-item basis, products listed as candidates for fairly substantial hikes this year include corrugated boxes, gasoline and fuel oil, nickel alloys, copper alloys, pipe, caustic soda and soda ash, paints, fiber glass, fats and oils, and bearings.

Reasons given for these increases are varied. In the case of paper, high exports are blamed. In fats and oils, it's the recent drought. And where goods are being imported, the recent softness of the dollar is fingered as being the chief culprit.

Prices: A PM view



Source: PurchasingWorld

> *"By and large, the consensus is that these increases won't be any worse than they were in 1988."*

All these are in addition to the usual comments about strong demand and supply tightness. But these latter, basically market factors, are expected to play a somewhat smaller role from here on in as capacity is slowly increased and demand begins to taper off a bit.

These improving 'market' factors, incidentally, are credited for the few products where some price relief is already becoming apparent. In any case, increasing competition is expected to put downward pressure on some chemicals, computers, fax machines, selected semiconductors such as dynamic RAMs, plastic bags, and plastic resins. Metals, too, are mentioned as candidates for relief. More to the point: While metal averages for the year will be up, most of the boosts have already occurred—with even some softness possible in aluminum, copper, and steel after midyear.

The new survey also asks purchasing executives about what they think may happen in 1990. Their answers are fairly encouraging. In fact, more see price rise deceleration than acceleration. And the average increase next year is put at about 4% *vs* 5% this year.

The reasons for this, say PMs are in part due to the improving supply-demand balance noted above. Another factor could be that the energy price runup may be about over—as OPEC and non-OPEC nations step up production in response to recent high prices.

Last but not least, there seems to be increased determination on the part of buyers to resist big hikes. Some of the tactics being used: more material substitution, increased use of long-term contracts, price guarantees, better vendor-buyer relationship (including partnerships with suppliers), value analysis, and demands for full cost justifications. Even the use of future markets for hedging is mentioned by a few buyers.

It's all summed up by one East Coast PM who notes, "I think we've seen the worst of the recent runup. Market factors and more pressure on our part should hold near-term increases at current levels—with some deceleration expected by fall or winter at the latest." **PW**

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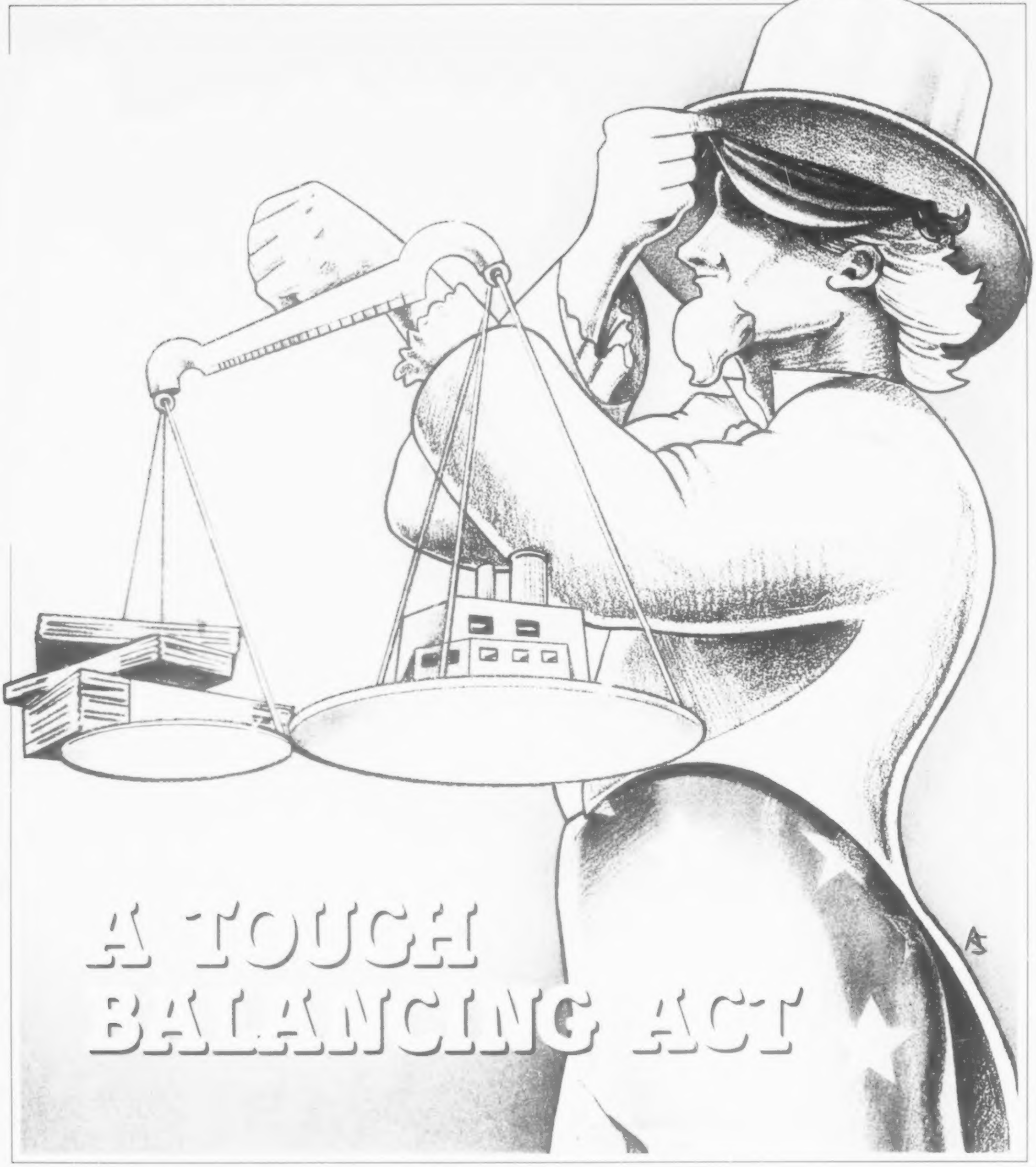
THE BUYER'S MAGAZINE JULY 1989


A TOUGH
BALANCING ACT
AS

1989 NAPM Conference highlights

Quality in steel transactions • Buyers zero in on transportation

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by Robert S. Reichard, editor-in-chief

The worst is over

It's virtually unanimous. The worst of the recent price runup looks to be over. Increases will still be bothersome—with inflation continuing to run well above the levels of a few years back. But the rates of gain are projected to level off, and may be a bit lower by fall—a trend which is expected to continue into early 1990.

So say buyers, sellers, the econometric forecasting models, and *PurchasingWorld's* own economist Dr. Roger Williams—all of whom have contributed to *PW's* new midyear business outlook section featured in this issue. Behind much of the optimism: expectations of a "soft landing"—with slower (though still positive) rates of growth expected to ease a good deal of the upward supply-demand pressure that has been propelling prices up over the past year or so.

These actual projections tell the story:

- **Dr. Roger Williams:** the Moravian College professor of economics sees industrial producer price increases decelerating almost a full percentage point—from 6.1 this year to around 5.3% in 1990. One reason: increasing productivity which will hold the unit labor cost advance to only 2% next year.

Other economists would seem to agree. Thus the prestigious National Association of Business Economists, in its latest survey of 54 professional forecasters, puts the inflation rate (this time on a cost-of-living basis) at only 4.7%—again a significant 0.6 percentage points under this year's estimated 5.3% level.

- **Buyer projections:** two independent forecasts are presented—one by *PW* readers and the other by the NAPM Business Survey Committee. Both suggest a peaking out in the quarters immediately ahead. Particularly encouraging: only 14% of NAPM members surveyed expect across-the-board increases over the next six months—half the 28% figure noted at the beginning of the year when a similar question was posed. And the 4.5% average rise anticipated by *PW* readers for the year as a whole is actually a bit under the year-to-date pace.
- **Econometric models:** this year's projected advances are a bit high (4.7% for the GNP price deflator and 5.4% for producer finished goods). But both these indexes are targeted for deceleration—with the slowdown in the producer level leaving next year's advance at only 3.7%. A rundown of specific areas (by DRI) suggests a similar trend—with two out of every three product lines surveyed targeted for smaller-than-1989 advances over the next year.
- **Top management:** the picture is much the same here. The average increase (as estimated by corporate executives) is put at only % this year. That's not much different than the 3% increase estimated by these same people just six months earlier.

Why all this cautious optimism? The "soft landing" scenario, of course, is a major factor. But there are other reasons, too. For one, the pickup in the dollar would seem to indicate that runup in import prices is over—something which, in turn, should put some restraint on pricing options.

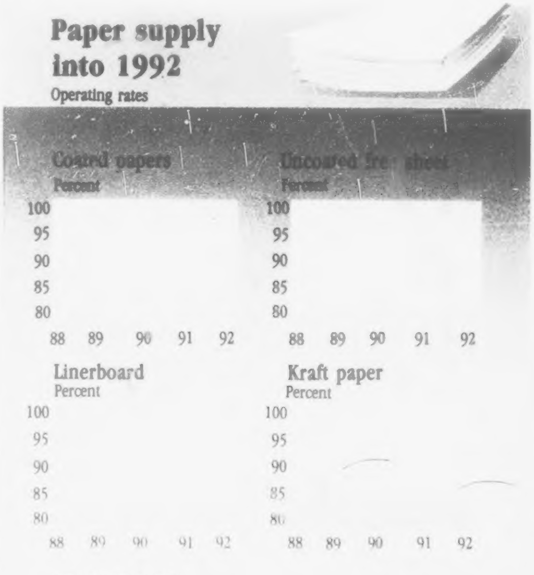
Then there's the expectations of a leveling in crude oil tags—as OPEC slowly increases its output. This can't be underestimated, for every dollar increase in crude almost immediately translates into a 0.2% percentage point increase in the cost of living.

A few words are also in order on increasing availability. The relatively small increase in industrial production suggested for 1990 is a lot lower than the expected increase in new production potential. If nothing else, it indicates that the rise in factory utilization rates is over—and that the rate could edge a point or two lower over the next 6-12 months.

And if more assurance is needed—even the usually cautious Fed is becoming somewhat more optimistic. One member, for example, says: "The conditions for a sustained surge in prices are just not there."

Paper pinch seems over

The worst of the paper and paperboard supply pinch seems over. If International Paper's current market projections are anywhere near correct, things should remain in fairly good balance—not only in 1990 but into 1991 and 1992 as well.



Source: International Paper

The new estimates, released in the firm's new "Direction 90" report, also confirm an American Paper Institute study of late last year which showed the industry upping its capacity sights.

- **Coated papers:** With the inflationary effect of stockpiling removed from end-user demand and an inventory draw-down underway, 1989 demand should equal 1988's. Capacity is up modestly; the only new machines being built won't significantly affect supply until 1990.
- **Uncoated free sheet:** Supply will increase slightly faster than demand in the next several years. Operating rates may dip to 90% in 1990 and remain there over the next few years. A number of new paper machines will come onstream between now and 1992. Imports are also expected to increase—up to 800,000 tons by 1994 as trade barriers fall away and the U.S. dollar strengthens.
- **Linerboard:** U.S. box shipments will set a new record for the fourth consecutive year, but they are projected to drop a bit in 1990, with recovery anticipated by 1991. This implies only a 92% operating rate in 1990 (*versus* 97% in 1988). But the rate should climb to 95% in 1992.
- **Kraft paper:** Demand loss (mostly from plastic substitutes) has been more than offset by the loss of supply. This should continue but at a much slower pace. Meantime, the biodegradability of paper should impact future demand positively. Result: operating rates should continue to back and fill in the 93-94% range through 1992.

Platinum demand stays strong

Prices should begin to strengthen after recent easiness—if only because global demand has been outpacing supply for four consecutive years—with the largest deficit (460,000 oz.) occurring last year (3.66 million oz. demand *versus* 3.2 million oz. production). In any event, demand continues to jump—rising 15% in 1987 and 10% last year; a reflection of increasing auto catalyst use. Best bet: a modest rise in quotes—perhaps into the $550/oz. range (dealer basis) by next year. But look for some respite within 3-4 years as new mines open up in South Africa, Canada and Australia.

Semiconductor drop continues

The price downtrend in DRAMs is likely to persist. Thus 256K types which

Continued...

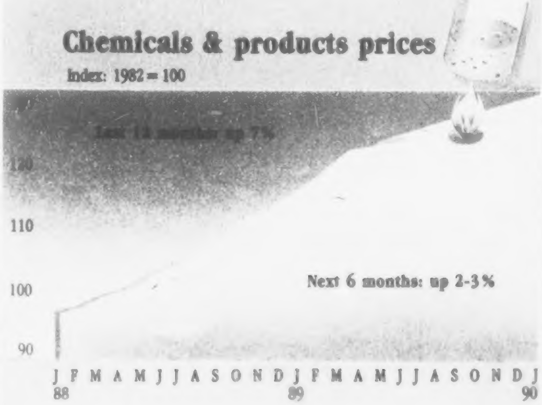
Chemical demand losing steam

CURRENT SITUATION: The big demand spurt of last year—when industry output racked up an eye-opening 8.5% advance—is running out of steam. True, production and sales increases are still being reported, but they're now running at only about half of last year's pace. And operating rates—although at the quite high 89% level—are now showing signs of leveling off. **Price increases also seem to be fewer and farther between.** And if you zero in on individual product lines, there's now a sprinkling of declines.

DEMAND: The recent slowing overall pattern is expected to persist into the second half. Upshot: Chemical output gains for the year as a whole are put at only 4-5% *vis a vis* 1988. Behind the deceleration: Some softness in both domestic and export markets. Better-than-average advances, however, are seen for synthetics (manmade fibers and plastic resins). Fertilizers, too, should do better than average. As for 1990, look for still more respite.

SUPPLY: Relief isn't that far off—as heavy capital spending translates into new capacity at a time when demand gains seem to be tailing off. This is probably most evident in plastic resins where the average operating rate is expected to fall four percentage points this year (to 87%). Big expansions are also underway in the petrochemical sector. For example, seven new "grass roots" ethylene plants have been announced.

PRICE OUTLOOK: Better market balance is already beginning to slow down the overall rate of increase—with advances over the next six months put only in the 2-3% range (4-6% at annual rate). While hardly Nirvana, it marks a continuation of the trend noted over the past few months. In any event, it's a lot better than the huge (10.6%) jump recorded over the 12-month period ending in March.



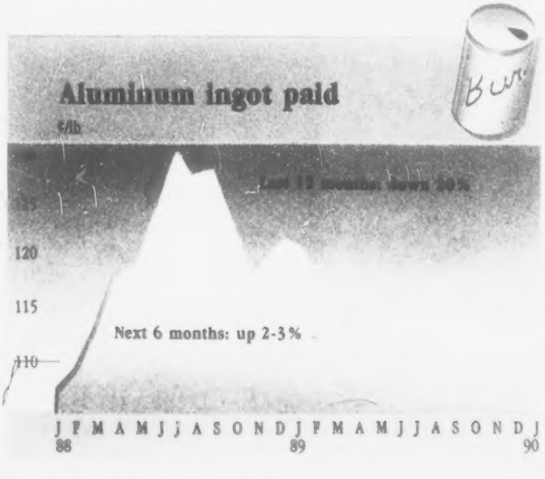
Aluminum

CURRENT SITUATION: The light metal has retreated from its recent peaks. Behind the softening: Some build-up in user inventories, slowly increasing global output, and concern about a general economic slowdown. Not surprisingly, ingot now fetches just under $1/lb.—well below the $1.30/lb. high of last year. Also indicative of a leveling off: Producers are holding aluminum rigid container sheet unchanged through the third quarter and ingot unchanged through July.

DEMAND: The industry seems headed for its third straight year of gain. Leading the uptrend will be packaging, exports and aircraft/aerospace. True, the latter accounts for only about 3% of tonnage. But in dollar terms it's a lot larger than that. Construction, meantime, looks to be off. But that won't be enough to prevent about **a 2% increase in aggregate domestic shipments (ingot and mill products)—to 17.3 billion pounds.**

SUPPLY: The recent tightness has eased a bit—and is being reflected by somewhat lower prices, a 5% increase in year-to-date domestic production, and a 2% increase in global stocks *vis a vis* a year ago. And over the longer pull, some new expansions have been announced in such diverse areas as Canada, China, Venezuela, Brazil, and the Mideast. But the figures only add up to about two million metric tons (to 17.25 million by 1995 *versus* 15.25 million last year).

PRICE OUTLOOK: Ingot could continue to inch lower—if as expected, overall demand begins to decelerate. Producers too, have some leeway to cut—for average production costs are now estimated to be down near the 55¢/lb. mark—off 10¢/lb. from levels prevailing just a few years ago. But don't expect prices to drop all that much.



went for $3.75 on average last year are likely to fetch only $3 this year and just $2.30 in 1990. The drop in 1 MBit types, from a 1988 $16 average quote to $13 this year and only $10 in 1990. The biggest declines seem reserved for new 4 MBit models where 1988's $15 average tag could be cut better than 66% in 1989 (to an average of only $50).

Lead prices still up

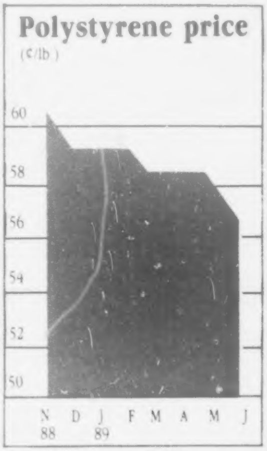
The heavy metal has been confounding the experts—with new advances bringing the going producer price up into the upper 30s—some 3¢/lb. above recent lows. Behind the runup: Healthy demand from both the ammunition and battery sectors. On the latter score, manufacturers are said to be rebuilding their stocks of replacement batteries which are off nearly 30% from year-ago levels. Another factor behind current strength: tight secondary supplies. Look for some softening by July when battery demand takes its traditional summer breather.

Computer price drops continue

The downtrend continues. Latest moves include a decision on the part of Data General to cut prices by as much as 25% on some versions of its MV/15000 mid-range line. And in the workstation area, Sun Microsystems has slashed tags 10-15% on its 386-based line—in a move to make these machines more competitive with high-end 386-based PCs. Also in the workstation area—Solbourne has reduced its Series 4600 models by 17%—saying that it would keep prices 10% lower than Sun's.

Polystyrene prices drop

As much as 3¢/lb. has been shaved off the going price—bringing transaction tags for the general purpose/crystal grade down to 56-57¢/lb. The impact grade is off by a similar amount (to 58-59¢/lb.). One factor behind the weakness: an expected 10% jump in new production potential this year on top of last year's 6% increase. Upshot: operating rates are likely to continue dropping—from 89% and 87% in 1987 and 1988, respectively—to around 82% this year.



Steel demand, prices down

The long price runup is over. Sign of the times: Hot-rolled sheet tags are being discounted anywhere from $35-80/ton—because of both heavy supply and modest user inventory cuts. And transaction prices on prime electro-galvanized sheets have dropped about 5% in recent months. Another good omen for buyers: steelmakers were able to extract less than a 2% increase from GM for 1990 model cars. GM—in an effort to keep steel tags down—also continues to develop programs of buying metal for some of its suppliers.

New transport service debuts

An alternative for those who find overnight delivery too slow: next flight out (NFO) service. True, it's costly—a 20-pound package via NFO would probably come to $150 when everything is added up (*versus* only about $50 for overnight delivery). Nevertheless, it must have something to offer—given growth rates that are currently put in the 4-5% annual range. Biggest users: high-tech firms in the electronics, computer, and medical equipment fields.

Benzene oversupply tumbles prices

Credit an oversupply of aromatics for the current price tumble. Demand hasn't been all that robust, either—as key end-use markets (styrene monomer and phenol) take a breather. In any case, inventories at latest count were running better than 20% ahead of a year ago. Not surprising, prices on the spot market have slipped to near $1.20/gallon—a far cry from the $1.75/gallon contract posting in effect at the beginning of 1989. More important, prices should stay weak near term.

Benzene (Houston spot)

Most fertilizer tags down

Excess production and high dealer inventories have made for a sharp drop in diammonium phosphate (DAP). Prices at latest report were down to $15¢/ton (FOB Florida)—off $25/ton from recent February highs. Amonia and urea tags are also off. Ammonia, for example, dropped to $103-105/ton (Gulf basis)—off $25-35/ton from February.

Energy outlook optimistic

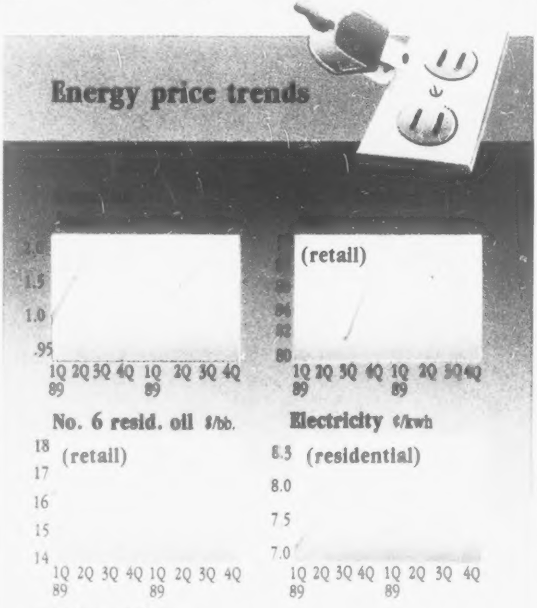
Government energy analysts remain basically optimistic—despite the recent price runups in both crude oil and refined products.

They see the bellwether imported crude tag most likely holding in the $17/barrel range through 1989 and much of 1990.

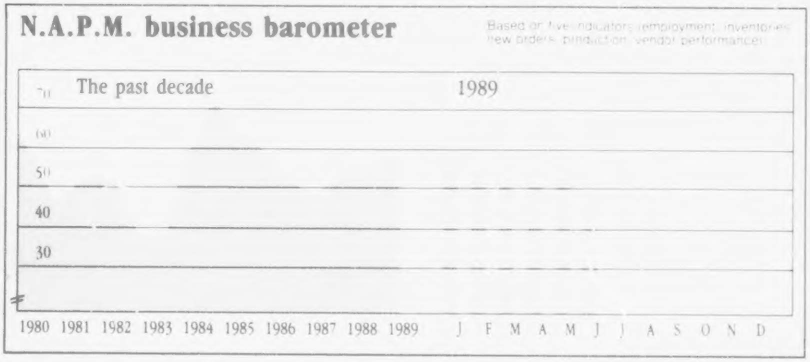
And these DOE experts could be right. Reason: Several OPEC producers are calling for an increase in the cartel's production—from the official 18.5 million barrels/day.

Meantime, here's a more detailed price rundown on what analysts see ahead into 1990:

- **Gasoline:** Prices have been rising sharply as recent world oil price boosts are passed along and the market is affected by various concerns regarding the ability of refiners to meed Reid Vapor Pressure rules by 1990.
- **Heating oil:** Retail averages will be up 3¢/gallon (to 84¢) this year—with a similar increase to 87¢/gallon projected for 1990.
- **Resid fuel:** This year's relatively big average retail jump—15% (to an estimated $16.22/barrel)—won't be repeated in 1990.
- **Natural gas:** Wellhead prices should rise about 3% over each of the next two years. Last year's seasonality (caused by big temperature extremes) should be dampened if, as expected, we return to more normal weather patterns.
- **Electricity (residential):** Some modest upward pressure is anticipated for 1990 after recent relative stability. The average, for example, is put at 7.88¢/kilowatthour (up 4% from last year).


Energy price trends

Source: Department of Energy



N.A.P.M. business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)

KEY ECONOMIC TRENDS

NAPM barometer drops

A lower rate of growth now seems almost certain for the next few quarters.

One good sign: the widely monitored NAPM business barometer dropped under the neutral 50 mark last month (see chart), the first time this has happened in over three years.

True, one month doesn't make a trend. But it does suggest that change is in the air. As NAPM Business Survey Chairman Robert J. Bretz puts it: "Virtually all indicators confirm the slowing of the economy and, perhaps more importantly, the sharp slowing of inflation growth along with it."

The latter is particularly encouraging. Not only does it back up *PW's* mid-year price projections in this issue, but it also should make the "soft landing" forecast a lot easier to achieve. Other evidence supporting the hoped-for deceleration: relatively small gains in retail sales, industrial production and employment—and actual declines in construction and auto sales.

But deceleration should not be confused with recession. The latter is still ruled out by rising disposable income, fairly high consumer confidence, trim inventory levels, improved installment debt, rising exports, and (last but not least), a peaking out in interest charges.

The prime rate, for example, has declined for the first time in over a year (top chart, right). Other things being equal, this is likely to spill over into reduced rates on a broad range of business and consumer loans—thereby helping to keep the economy on a relatively even keel.

The drop in the prime is also likely to have some braking effect on the recent housing slump where new home sales for the year have been running close to 5% under comparable 1988 levels. Point to keep in mind: many banks use the prime rate as a base for calculating rates on adjustable rate instruments such as home mortgage loans.

The need for some bolstering here is also evidenced by the fact that overall construction spending is down for the year—and the same is true of contract awards, which for the year-to-date are off about 2%.

Consumer buying of big ticket durables, meantime, also leaves something to be desired. Autos are a good example: May sales of domestic-made vehicles ran at a mediocre 7.2 million annual pace—down from the 7.5 million level of the previous month.

To be sure, these are not horrendous figures. But they do indicate that consumers will at best be only a neutral factor in the growth equation over the next 3-6 months.

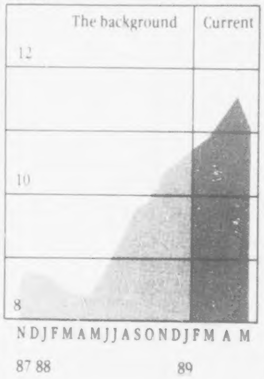
This less-than-positive picture also shows up in the latest consumer surveys. The Conference Board's Confidence Index is now a bit under late winter highs—and expectations as to the purchase of new cars don't compare all that favorably with last year's readings. On the other hand, it should be emphasized that both these measures are still at respectable levels—nowhere near recession lows.

Last but not least, a less ebullient outlook is indicated by latest factory overtime figures. Excess work hours have slipped—sug-

Leading indicators

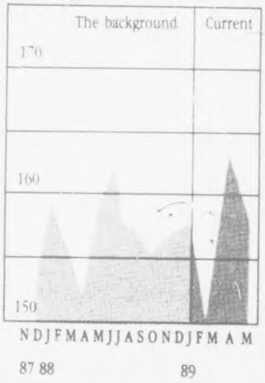
Prime rate

Percent



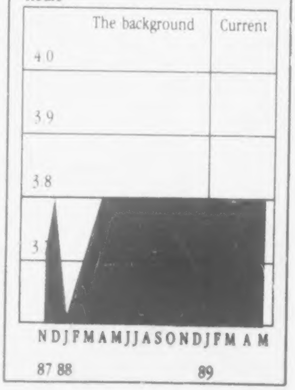
Contract awards

Index: 1982 = 100



Factory overtime

Hours



gesting less urgency in meeting production schedules.

What does it all add up to? *PW* estimates for industrial production put second half gains at only 1% at annual rate—a far cry from the 3.5% rate reported as recently as the first quarter.

But that's all to the good. Judging from recent pronouncements that's just about the rate of growth wanted by the Fed and most administration economists.

CURRENT PRICES

Energy, autos push prices

Uncle Sam's bellwether industrial producer price index edged up a disturbing 0.6% this past month—or more than 7% at annual rate.

But most government inflation watchers are not too concerned. They note that two special factors were at work—sharply rising energy prices and higher car costs occasioned by reduced auto company sales incentives.

Neither of these two factors is expected to be repeated anytime soon. On the energy front, the big 2.7% monthly rise is expected to give way to stabilization or even some modest declines as crude oil begins to show signs of peaking out.

Another sign that the worst of the runup may be over: Crude nonfood (less energy) totals actually showed a fractional decline at latest report. Since these are basically demand-sensitive items, it does seem to suggest that market pressures at the grass roots level are starting to ease up a bit.

This easing shows up clearest in the metals sector where copper, aluminum, zinc, nickel and most nonferrous mill shapes all fell. Stainless steel also edged lower. Ditto, the overall finished steel product average.

The same encouraging trend is noted in the chemical and allied product area. True, both inorganic and organic averages moved higher. But the gains were both less than 2.5% at annual rate (well under recent advances—see *PW Predicts* chemicals).

Then, too, plastic resins, which apparently peaked earlier this year, continue to fall—with a 0.9% (or nearly 11% at annual rate) drop recorded last month. And judging from current reports, the same trend is continuing into early summer.

On a less rosy note was the 0.4% (or 4.8% at annual rate) advance in capital goods. But much of this can be traced to the increases in autos alluded to above—an area that Uncle Sam counts as part of capital goods.

In any case, the capital goods picture (ex autos) is not all that bad. True, a fair number of products rose—including office equipment, material handling equipment, transformers, paper industry machinery and textile machinery.

But all these have to be weighed against the nearly "no change" headings noted for rail equipment, metal forming machine tools, aircraft and mining machinery—all of which rose substantially during the previous month.

Adhesive industry clings to progress

Slow demand growth, a lot of innovations and new applications and modest price advances; that's the scenario painted for the near-10 billion pound adhesive industry over the next few years.

The analysis, just released by Cleveland's Freedonia Group, points to about a 4.3% average annual price increase (unit cost—cents/pound basis) over the next five years. Subtract that from the projected 6.8% annual dollar growth projection—and real demand looks to be advancing at only a 2.5% rate.

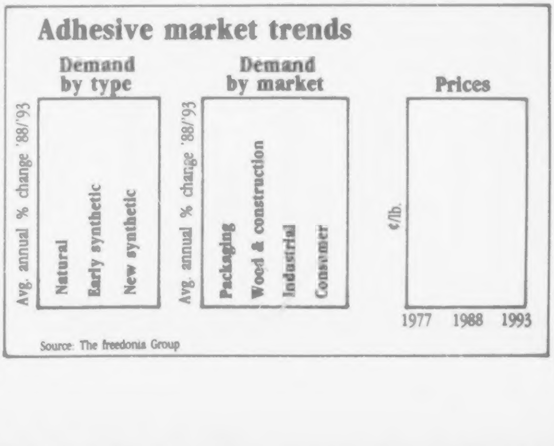
On the changing product mix—the study sees substitution of higher performance, more efficient adhesives. In any case, research will center on decreasing cure times, developing more efficient applications systems and formulating products that comply with stricter government rules.

Viewed from a type of adhesive perspective, the relatively small (6% of the market) "new synthetics" types will grow fastest (4.8% in real terms through 1993)—despite the fact that these are the most expensive. Many of these are aimed at replacing mechanical fasteners—and their continued penetration into these new markets account for high growth rates.

On the other hand, "early synthetics", which will continue to comprise over half of the market, are projected to grow 2.7% annually in real terms. Phenolic and vinyl types will remain dominant, but best opportunities are seen in hot melt adhesives—due to their rapid cure, long shelf life, absence of solvents, and amenability to automated production lines.

As for "natural" adhesives, these will only grow slowly due to market maturity and lack of new product applications. Nevertheless, they will still comprise over 40% of the market in 1993 because of their low cost and adaptability to high-speed machinery.

A few words on end-use markets: Packaging is largest—accounting for about 49% of total demand. Growth for wood product adhesives (the second largest user) will result from renewed activity in


Adhesive market trends

Source: The freedonia Group

the construction sector and more demand for wood products. But the greatest opportunities are anticipated in industrial bonding applications where annual gains of 2.7% are projected.

PROCUREMENT STATUS REPORT

Soft landing implications

The "soft landing" scenario projected for the economy has some positive implications for procurement. Other things being equal, slower growth means more bargaining leverage, improved availability and a slow shrinkage in leadtimes.

Some of these trends may already be discernible. On the leadtime front, ***PW's*** exclusive leadtime index actually fell fractionally under the neutral 50 mark last month—meaning that there are now more items coming in than there are stretching out.

This same trend shows up in the NAPM Business Survey Committee report. For the first time in years, buyers reporting faster deliveries outnumber those noting slowdowns—though the difference (as in the case of ***PW's*** leadtime index) is slim.

In any event, the survey's delivery index (where anything under 50 measures improvement) fell to the lowest level in almost three and half years. Equally meaningful: the number of commodities reported in short supply declined to 12—the fewest since November, 1987.

Not surprising, the number of purchasing managers committing 90 days or more in advance for production materials remains at the lowest level in years—18% now *versus* 24% as recently as February.

These figures are also consistent with inventory retrenchment, where the number reporting lower stocks (25%) far outweighs the 14% still adding. As the NAPM puts it, "Purchasing people appear to be more confident about material shortages disappearing—as they face the usual summer slowdown in activity."

But perhaps the most optimistic sign of a waning sellers' market is the survey's findings on prices. True, increases (reported by 25%) still outnumber decreases (10%). But the gap between the two is half the 38 percentage point figure of just one month earlier.

Also worth noting: only 11 items were reported up in price at last report—the fewest in nearly two and a half years. And that was almost matched by the 10 items reported to be edging lower.

Operating rates ease down

The worst of the recent supply pinch may be over—witness the leveling off and even slight downturn noted in the overall factory utilization rate over the past few months (see chart).

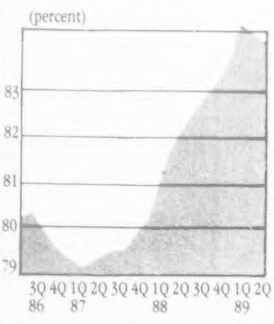
Credit the shift to two factors: A somewhat slower industrial production growth pattern and a faster rate of increase in new capacity.

And these trends are likely to continue. Most forecasts call for industrial production to advance at a 1-2% annual rate in the second half—as auto and construction demand take a breather. On the other hand, new potential which has been coming onstream at a 3% rate should hold at this pace—and may even accelerate a bit as capital spending gains continue.

You can probably figure on another 0.5-1% decline in the average operating rate by year end—enough to push this key barometer of availability down into the 83% range. Point to keep in mind: that's two

Operating rates have peaked

The overall trend



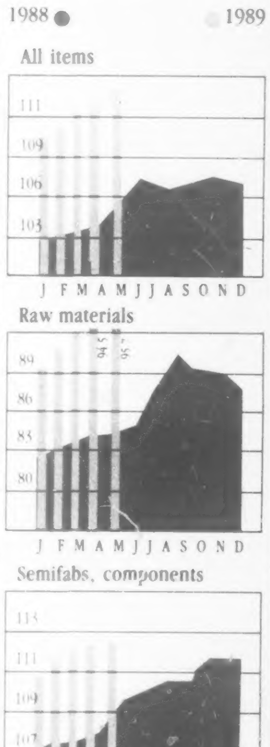
Industry-by-industry

(% point change from year earlier)

Primary metals	+1.9
Fabricated metal products	+1.3
Non-elect mchy	+4.9
Elect. mchy.	−0.1
Automotive	+4.2
Instruments	+2.3
Tectile mill products	−0.5
Paper & prod.	−1.9
Chemicals & prod.	+2.6
Petroleum prod.	−2.0
Rubber & plastics	−3.4
Ulilities	+0.4

Industrial prices

(Index: 1982 = 100)



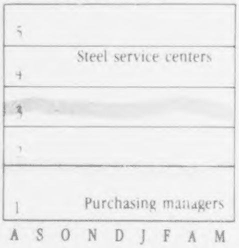
Source: Bureau of Labor Statistics

Steel

Operating rates

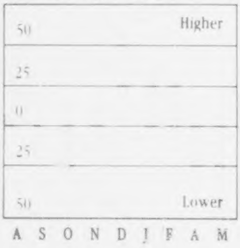
Inventories

(Months supply on hand)

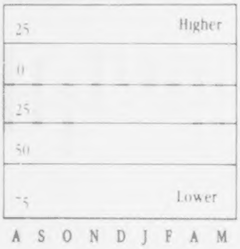


Demand (STEEL SERVICE CENTERS)

(Percent of respondents)



Demand (STEEL BUYERS)



Source: Steel Service Center Institute
NAPM Steel Buyers Committee

significant percentage points under the 85% level which has traditionally signalled shortages and all the problems such shortages bring.

This is not to say, of course, that all industries will be equally affected. Paper rates, for example, remain above the 92% range. And chemicals are approaching the 90% level. There has also been a five percentage point jump in non-electrical machinery rates over the past year.

But many of these areas seem as high as they're likely to go. New paper production is on the way (see PW Predicts section). And the same is true of chemicals and plastics—with some excess production now actually cropping up in the latter area.

Metal availability is also looking better. That's probably why there has been some recent weakening in steel, copper, aluminum and nickel tags in recent weeks.

On the other hand, don't expect any return to the all-out buyers' market of a few years back when operating rates were running well under 86%. As of now, all signs point to about an 82-84% factory utilization rate—a level consistent with basic supply-demand balance rather than glut.

Import prices

(compared to domestic)

Steel buyers

ABOVE 59%
SAME 19%
SLIGHTLY BELOW 22%
SUBSTANTIALLY BELOW %

SERVICE CENTERS (carbon)

ABOVE 4%
SAME 86%
5-10% BELOW 10%
10-20% BELOW 0%
OVER 20% BELOW 0%

STEEL SCENE

Steel demand declines

Don't be surprised to see a sharp decline in steel demand over the next few months.

New survey figures from both buyers and service centers tell the story. On the buyer front, for example, an impressive 39% of those queried are talking about reduced purchases over the summer months—with only 4% contemplating additions. This big 35 percentage point gap compares to a 17 point gap last month and the even smaller 6 point differential the month before.

The latest Steel Service Center Institute (SSCI) study is even more lopsided on demand estimates. Specifically, 52% see declines—the largest such reading in nearly three years. And again this overwhelms a minuscule 4% who are still hopeful of increases.

Part of this represents expectations of a leveling off in consumption—particularly by such large steel-using sectors as autos and construction.

But inventory retrenchment looks to be another significant factor. An impressive 68% of queried service centers say their inventories are too high relative to sales—again the biggest such number in several years.

Commenting on this, SSCI President Andrew G. Sharkey observes, "The overall upward trend in total steel inventory is some cause for concern. But it is encouraging that our members will be attempting to reduce total inventory levels in the months ahead."

Buyers, too, are becoming concerned about their holdings. And with good reason, for their months' supply showed a fairly large jump at latest report—all the way up to a 2.13 month level (*versus* only 1.81 the previous month).

They are also contemplating retrenchment—as witnessed by the fact that 68% now say they will be cutting back over the next six months. Contrast that to no respondents planning on making additions—and it's clear that buyers mean business.

The overall impact of this inventory swing is estimated at over two million tons by Wharton Econometrics. Specifically, a 0.5 million rise in stock levels over the first half is expected to give way to a 1.6 million ton second half cutback.

This change—plus a leveling off in consumption—is already having some impact on the availability front—as measured by buyer perception of shortages over the next six months. Right now, 78% of those queried see no problems—more than twice the 34-35% problem-free reading of this past spring.

Even fears about coated sheet—a product that 25% were concerned over a few months back—are diminishing. At latest report, only 7% felt this product line could be tight over the coming months.

Improving availability is also raising hopes about holding the price line over the remainder of the year. The aforementioned Wharton analysis actually sees some erosion (composite contract and spot price basis)—with 3.5% knocked off midyear averages by year end.

Steel service centers are also becoming more optimistic about prices. Thus 26% of those queried see declines over the next six months, compared to only 15% who anticipate some overall advance.

You'd have to go back years to see more service centers opting for declines. It's also a major reversal from just a year ago when those contemplating increases (64%) overwhelmed a small 7% hoping for price breaks.

This month's breakdown

Index: 1982 = 100

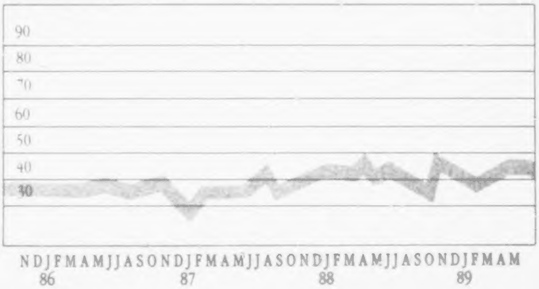
	Latest level (May)	% change from: Month ago	Year ago
Bearings	124.7	−0.8	12.7
Bolts, nuts, etc	110.7	1.5	3.8
Chemicals, inorganic	107.9	0.2	7.6
Chemicals, organic	121.1	0.2	15.3
Concrete products	110.8	0.0	0.8
Corrugated cartons	113.1	0.9	2.4
Cutting tools, small	109.8	0.2	2.6
Electric lamps (bulbs)	124.0	0.0	−1.6
Electronic components	119.5	0.2	1.8
Fans and blowers	117.7	0.3	4.4
Foundry and forge products	114.3	0.3	5.0
Fuel oil (residual)	49.4	4.4	16.0
Furniture, commercial	128.4	0.6	3.7
Gasoline	76.9	8.9	29.0
Glass, flat	111.0	0.9	1.2
Glass containers	116.1	−0.2	3.6
Gypsum products	110.6	1.7	−1.9
Hand tools	127.2	0.2	5.6
Hand tools, power driven	115.9	−0.1	3.9
Industrial furnaces	124.0	0.6	4.1
Integrating and measuring instruments	118.1	0.8	1.7
Internal combustion engines	113.5	0.3	2.3
Lubricating oil	106.8	−0.6	2.5
Lumber millwork	128.0	0.4	5.3
Material handling equipment	111.3	0.7	3.9
Metal containers	110.5	0.3	0.1
Metal mill shapes (nonferrous)	138.7	−1.4	8.9
Metal tanks	111.6	1.3	6.8
Motors and generators	128.0	0.2	6.6
Motor trucks	129.0	0.2	4.1
Office and store equipment	108.7	0.1	2.6
Paperboard	143.5	−0.2	7.6
Paper boxes and shipping containers	129.9	0.8	5.3
Paper office supplies	122.2	0.8	7.4
Paint	118.9	0.4	7.0
Plastic resins	140.0	−0.9	7.6
Precision measuring tools	125.5	0.2	3.4
Pumps and compressors	114.6	0.4	6.2
Refractories	119.7	0.1	5.3
Rubber belts and belting	112.4	−0.5	6.4
Scales and balances	106.2	0.0	0.9
Steel products	114.7	−0.2	3.8
Switchgear	118.9	0.5	5.2
Textiles, synthetic fibers	104.7	0.7	7.9
Textiles, gray fabrics	113.9	−0.2	−0.3
Tires and tubes	98.0	0.9	4.8
Transformers and power regulators	116.1	0.7	7.7
Welding equipment	122.3	0.0	5.1
Wire and cable	148.0	0.5	21.1

NAPM procurement trends

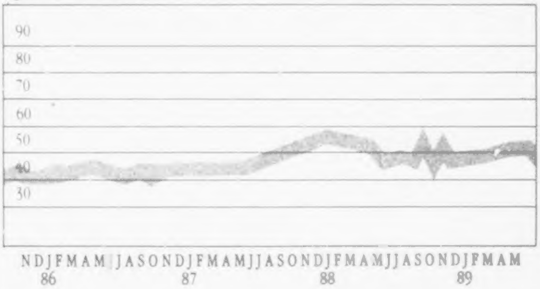
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

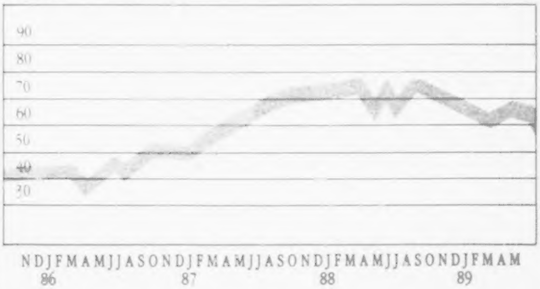
Inventories



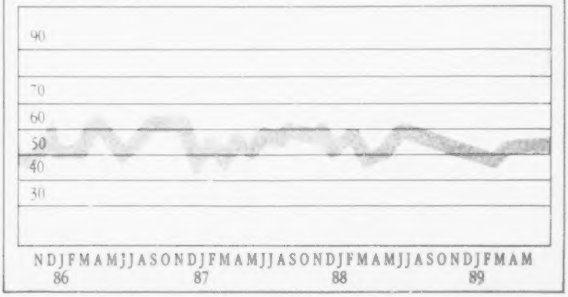
Speed of delivery



Prices



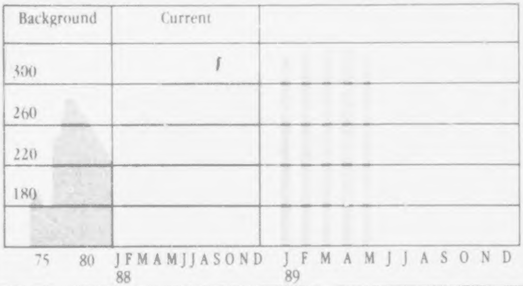
New orders



Raw material price barometer

(Index 1967 = 100)

Last month 331.5
Month before 335.0
Year ago 301.6



Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	18.70	18.70	16.50
Steel, bars, Pitts., cwt	18.70	18.70	16.50
Steel, bars, C.R., Pitts., cwt	25.20	25.20	19.45
Steel, plates, Pitts., cwt	23.25	23.25	19.75
Steel, plates, H.R., Pitts., cwt	23.25	23.25	19.75
Steel, sheets, C.R., Detroit, cwt	29.65	29.65	28.15
Steel, strip, C.R., Chi., cwt	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	93	.99	1.26
Antimony, N.Y., dealer, lb.	.95	.95	.98
Beryllium-copper, cost ingot, lb	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	1.81	2.02	1.80
Brass, yellow, [sheet], lb.	1.77	1.98	1.75
Cadmium, N.Y., dealer, lb	6.80	7.10	8.00
Copper, electrolytic, wire bars, refd., lb	1.18	1.39	1.16
Copper sheet, over 24 in., lb	1.90	2.11	1.88
Lead, common, N.Y., lb.	.36	.36	.36
Magnesium, pig ingot, [99.8%], lb	1.63	1.63	1.58
Mercury, 20 fl. lots, N.Y., fl	295.00	295.00	355.00
Molybdenum, oxide, dealer, lb	3.70	3.65	3.50
Nickel, cathode, dealer, lb	5.65	6.50	7.05
Platinum, dealer, oz	496.00	534.00	574.00
Silver, N.Y., oz	5.21	5.64	7.01
Tin, N.Y., dealer, lb	4.64	4.85	3.31
Zinc, Prime West, East St. Louis, lb	.85	.85	.63
Zinc, die casting alloy, No. 3, lb	.930	.930	.675
PAPER			
Uncoated book #3 offset, ton	1020.00	1020.00	920.00
Watermarked bond, ton	1095.00	1095.00	1070.00
Gummed sealing tape, carton	18.68	19.05	17.57
Grocery sacks, ton	495.00	495.00	455.00
Solid bleached paperboard, ton	780.00	780.00	685.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	410.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.282	.282	.285
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.22	1.22	1.22
Cotton middling, 1", N.Y., lb	.611	.634	.644
Printcloth, 48", 80x80, N.Y., spot, yd	.500	.500	.490
Army duck, 37", 13 oz., yd.	1.40	1.40	1.51
Blended printcloth, 64", 78x54, yd	.775	.765	.640
20s combed yarns	1.85	1.85	2.00
Wool 64s, Staple, lb	3.75	3.75	4.50

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	.400	.400	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	103.00	123.00	100.00
Benzene, petroleum, tanks, Houston, gal	1.22	1.49	1.05
Caustic soda, 76% solid, drums, carlots, cwt	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.55
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.845	.785	.685
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.49	.52	.55
Naphthalene, crude, tanks, lb.	.16	.16	.22
Phthalic anhydride, tanks, lb	.41	.41	.34
Polyethylene resin, low density liner film grade (market place), lb	.465	.480	.465
Polypropylene, homopolymer grade (market price), lb	.450	.450	.390
Polystyrene, general purpose grade (market price), lb.	.565	.585	.590
Polyvinyl chloride, pipe grade (market price), lb.	.415	.430	.420
Soda ash, 58%, light carlots, cwt	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb	.47	.49	.45
Sulfur, crude, ex-terminal Tampa, Fla., lt.	142.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	1.020	.950	.870
Xylene tanks, gal.	1.45	1.45	.87
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	328.56	329.50	329.30
Lumber 2x2 pine, mbf, cl	317.14	316.50	326.15
Plywood, plyform, ¾", msf, cl	602.66	592.28	578.70
Plywood, ⅝", msf, cl	361.53	362.94	413.45
Cement, bulk, ton, tl	63.14	63.97	65.02
Sand, ton, cl	7.12	7.12	7.32
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.53	48.81	49.10
Crushed stone, 1½", ton, cl	N.A.	N.A.	N.A.
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	89.10	89.10	N.A.
Reinforcing bars, whse base; per cwt	22.79	22.64	20.72
Asphalt paving AC-20	109.36	108.53	128.37
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	N.A.	N.A.	N.A.
Concrete sewer pipe, 24", prem. joint, per foot, cl	17.89	18.14	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	20.50	20.05	17.25
Diesel (reseller rack, Chi), gal.	.4950	.5325	.4625
Fuel oil No. 2 (N.Y.), gal.	.5290	.5162	.4675
Fuel oil No. 2 (Gulf spot), gal.	.4875	.4720	.4150
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	20.00	21.75	16.00
Gasoline (reg lded NY), gal.	.7080	.7000	.5350
Gasoline (reg unlded NY), gal.	.6955	.6875	.5075
Kerosene (reseller rack, Chi), gal	.5775	.6130	.5050
Propane (Mt. Belvieu, Tex), gal.	.2013	.2050	.2413
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	110.00	114.00	104.00
Steel, No. 1 hvy., dlvd., Chi., ton	113.00	113.00	108.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.040	1.125	.970
Copper, No. 2, East, wholesale buy, dlvd., lb.	.945	1.025	.880
Brass, red, East, wholesale buy, dlvd., lb.	1.000	1.085	.930
Brass, yellow, East, wholesale buy, dlvd., lb.	.575	.620	.425
Alum., old sheet/cast, E., wholesale buy, dlvd., lb	.635	.655	.680
Alum., mixed clip., E., wholesale buy, dlvd., lb	.715	.735	.750
Zinc, old, East, wholesale buy, dlvd., lb.	.38	.38	.24
Lead, clean solids, East, wholesale buy, dlvd., lb.	.22	.21	.22
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	Nom.	15.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	5.00
Old newspapers, Chi., ton	Nom.	5.00	15.00
Old white ledger, Chi., ton	75.00	75.00	75.00

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Price curve flattens

The projected flattening out in the overall price curve over the next year or so should be affecting a lot of individual products.

Lest there be any doubt on this score, take a look at the latest DRI price forecasts detailed in the accompanying table. Analysts at this econometric consulting firm indicate that roughly two out of every three product lines contained in the table will show smaller price increases in 1990 than 1989. And, while not shown in the table, this moderating trend is expected to continue into 1991.

Part of the improved outlook can be traced to expectations of less robust demand gains. Thus real GNP is projected to grow only 2.6% this year, with an even lower 1.4% advance targeted for 1990. Even in 1991, the real increase is only put at just over 3%.

Unit labor costs are also expected to contribute to somewhat lower price boosts. Aided by increasing productivity, for example, unit labor cost gains are expected to decelerate—from 4.8% in 1989 to 4.4% in 1990, and to an even smaller 3.7% in 1991.

With all the above in mind, here's how the DRI Cost Information Services group sees individual product line prices moving over the next few years:

- **Crude oil:** The price of foreign crude (refiner acquisition basis) is projected to post a 14.6% increase in 1989—mostly on the strength of a 152.9% annualized increase in 1Q. It suggests a year end price of $17.12/bbl., after averaging out at only $14.71/bbl. in 1988. On a rosier note, price escalation in crude is expected to slow in 1990-91—to increases of 5.7% and 6.2%, respectively.

As might be expected, refined petroleum products' tags will also be rising. Fuel oil prices will be up 6.0% in 1989, 7.1% in 1990 and 5.8% in 1991. Gasoline will follow a slightly different pattern. After a 1988 increase of just 0.8%, 1989 pumps tags jump 9.0%—with advances of 6.9% and 3.5% forecast for 1990 and 1991, respectively.

- **Machinery and equipment:** Reflecting the very strong demand conditions of 1988 which have trickled into early 1989, prices here are expected to increase 4.4% this year—up from only 1.5% and 2.6% in 1987 and 1988, respectively. But with some growth deceleration ahead, producers will be forced to keep price increases moderate in 1990—though by 1991 a business pickup should permit them more room to maneuver. In any case, the overall index slows to a 4.2% increase in 1990 before accelerating to 4.8% in 1991.
- **Electronic components:** Only computers, of the four major industries that use components, (the other three are communications, defense and automotive) will remain in the plus column near term. Upshot: output will slow and put a lid on price increases, too. Best bet: an increase of 3.7% in 1989, followed by only a 3.2% advance in 1990. But some acceleration to a 5.3% average rate of increase is contemplated for 1991.

Product-by-product price trends into 1990

(Fourth quarter comparisons)

Product	1989	1990
Basic raw materials & energy		
Nonfood, nonfuel for manufacturing	7.8	4.7
Corrugated containers	3.4	3.2
Refined petroleum products	13.0	5.4
Electric power	4.3	2.8
Metals		
Galvanized sheet	4.5	3.1
Rebars	4.8	1.0
Steel carbon plates	1.2	2.1
Steel castings	3.7	2.5
Primary aluminum ingot	0.0	3.2
Domestic copper cathode	−14.1	−0.1
Fine die casting alloy	12.2	0.9
Aluminum plate	8.6	3.8
Magnesium ingot	4.6	3.2
Component parts		
Electronic components	3.8	3.6
Durable components	5.2	4.0
Fasteners	4.3	3.8
Values & fittings	4.0	2.3
Tires	7.1	7.5
Rubber belts	3.0	4.8
Motors & generators	6.3	5.7
Construction materials		
All materials	3.7	4.0
Lumber & wood products	4.9	4.6
Nonferrous wire & cable	0.1	3.2
Concrete products	1.3	3.3
Asphalt roofing	0.6	3.7
Paint	6.9	5.1
Machinery		
Rail equipment	5.3	5.8
Construction machinery	7.2	5.9
Fluid power equipment	5.3	6.5
Material handling equipment	4.7	3.6
Trucks	5.4	4.4

There is one caveat—prices for individual items may vary greatly from the overall rates just given—with some prices falling dramatically while others remain steady. An example is that, with production of 1Mb DRAMs expected to jump by as much as 270% from 1988-89, prices for this component are expected to fall sharply. But as output shifts toward this increasingly popular DRAM, prices for less powerful units such as type 256K DRAM should experience some upward pressure.

- **Steel:** Even with marginal prospects of demand growth, U.S. steel production can remain profitable with continued efforts to modernize, hold the line on costs and increase efficiency. Overall, steel mill prices are projected to increase to some

4.9% this year, 3.0% in 1990 and 4.7% in 1991. In one area—stainless—prices could actually edge lower as nickel and other alloying costs fall.

- **Nonferrous metals:** Prices are targeted to decline in the second half of 1989 as key markets such as automobiles and construction soften. But demand should pick up after mid-1990. As such, nonferrous tags eventually regain some of their lost momentum. Upshot: after rising 22.3% last year, the aggregate price average moves up 7.4% in 1989, only 0.1% in 1990 and 5.0% in 1991.

As for individual metals, aluminum ingot by year end will show no change from late 1988 levels. And in 1990 only a 3.2% advance is seen (see table). Copper, on the other hand, will be softer—with prices off 14% from a year ago by 4Q. Little more than a flat pattern is anticipated for the red metal in 1991. As noted above, nickel will also remain soft—with prices by year end off 10% from late 1988 levels.

- **Industrial chemicals:** Prices will peak this year, with a 13.9% increase expected. A slowdown in real economic growth for 1990-91, combined with the advent of additional chemical capacity, result in some dampening of chemical price averages—with escalation rates of 5.7% and 4.5% for 1990 and 1991, respectively.
- **Building materials:** The current lackluster construction outlook won't have too much near term impact. Reason: supported by projects begun earlier, materials producers should enjoy healthy demand for their products for at least another quarter.

But by 1990, the downturn in residential building and the continuation of the prolonged slide in nonresidential construction will begin to affect materials prices, holding the rates of increase to near 4% a year. By 1991, however, the rebound in nonresidential construction, plus some pickup in the residential area, will produce increases in demand, which will support price advances.

No Gloom and doom

The nation's top industrial purchasing executives aren't buying all the recent gloom and doom talk—either about an upcoming recession or accelerating inflationary pressures.

The evidence comes from two sources: the NAPM business survey committee and *PurchasingWorld's* own readers. The general feeling in a nutshell is that business gains, while harder to come by, are still anticipated, not only through year end but into early 1990 as well.

And while price increases aren't about to disappear, the horrendous acceleration noted in some areas—most notably in basic raw materials—is over. A fair number of respondents sees the possibility of decelerating annual increases in the quarters immediately ahead.

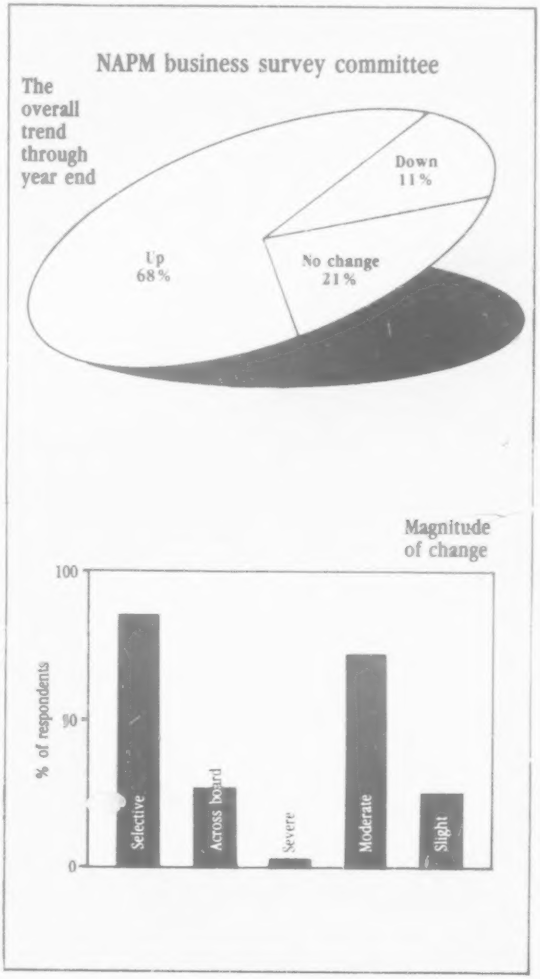
Taking off on the latter point, the NAPM results on prices (see chart) suggest some improvement in the overall inflationary climate. Specifically, while more than two out of three queried NAPM members still see increases over the remainder of 1989, the magnitude of the advances is expected to slow.

More to the point, only 1% say boosts will be severe over the next six months. (*versus* 6% at the beginning of 1989 when a similar question was posed). And 86% now feel hikes will be selective rather than across the board (*versus* only 72% at the beginning of 1989).

The NAPM estimate of the average increase for 1989 as a whole is also quite encouraging—3.8% currently, virtually unchanged from the 3.7% estimate made at the beginning of 1989. It also means that much of the year's increase may already be behind us—since prices have already advanced by close to 3%.

The *PW* survey tells much the same story. True, the average 1989 increase (roughly 4.5%) is a bit higher than that seen by the NAPM. But no respondent anticipates dou —

(con't. next page)



ble-digit jumps. Equally important, the number who have downgraded their 1989 estimates since the beginning of the year now balances out the number who feel bigger hikes may be in the offing. In short, if acceleration is occurring, our average reader is not experiencing it.

As noted above, the two independent buyer studies also confirm that few are accepting the recession forecast that has been making the rounds of late. In fact, the 65% of *PW* readers who feel the second half will exceed the first half is more than double the 30% who feel a drop may be in the cards.

The NAPM committee view would seem to confirm this appraisal. The comparable figures for the overall second half: 42% predict a better second half than first half, 28% a worse second half with the remaining 30% seeing little change. And the NAPM optimism actually rises in 1Q 1990 when the 32% who see improvement *vis a vis* 4Q 1989 is far above the 15% predicting a fall off.

Inventories, examined only by *PW*, look to be rising a bit from now through year end. But put in the context of still-improving business conditions, this suggests that the gains will do little more than keep pace with production. Implication: the inventory/sales ratio (essentially a measure of days' supply) will stay pretty much near current low levels.

Looking next at exports--something which only NAPM examines: about 46% see increases over the next half year—overwhelming the 7% which anticipated declines. True, the ratio isn't quite as lopsided as the 57% up and only 4% down reading of six months earlier. But it still has to be regarded as a major plus sign of the economy.

These same NAPM buyers also see a step up in capital expenditures for the year as a whole--45% anticipating increases *versus* only 24% anticipating decreases. This has hardly changed from beginning-of-the-year estimates—something indicating that the capital equipment boom first noted last year still has a ways to go.

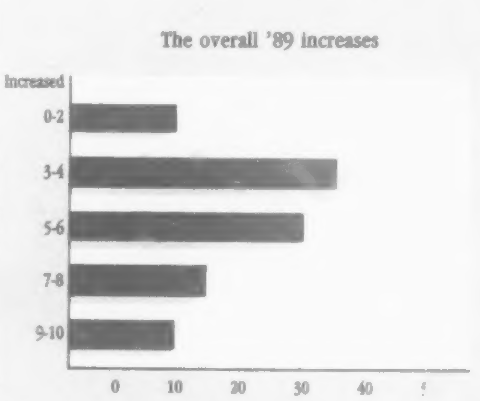
And, it's easy to see why—for 54% of NAPM respondents say their firms are operating at 90% or higher utilization levels. On the other hand, there are signs that the capital spending is having some effect—because an even bigger 58% were producing in the 90% or higher operating rate range at the beginning of the year.

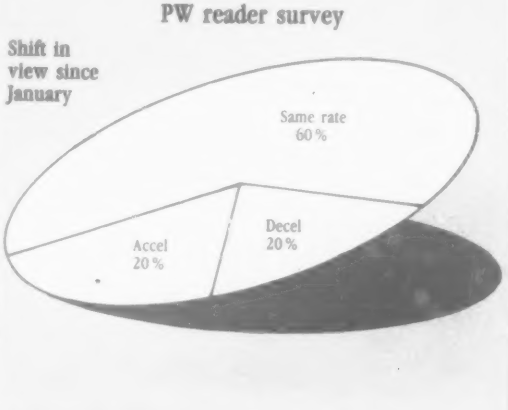
This trend toward better market balance could also be why *PW* readers expect better supply/demand balance ahead. Specifically, some seven out of every ten see no major shortages. True, 25% do feel some further leadtime stretchouts are still possible. But this is now being offset by another 25% who are hopeful they can narrow leads

That's not to say that these same readers don't have a few supply problems—most notably in bearings and selected chemicals, and in a few memory device areas. But they add that in the last two categories things look like they're ready to ease a bit.

The nation's purchasing managers are also leaving no stone unturned in their own drives to keep inflation within bounds. Some of their approaches: better inventory controls, cost justification for all important price increases, more long-term contracts and blanket orders (often with price guarantees), closer liaison with vendors (not only to get better prices but to improve quality and delivery performance), more value analysis and even some hedging on future markets.

The situation is perhaps best summed up by one respondent who observed, "I think buyers, suppliers and the Fed are now all pulling in the same direction. And while the inflation threat isn't going to disappear any time soon, we're betting we can knock about one percentage point off our overall inflation rate—if not by year end then certainly by next spring or summer."


The overall '89 increases


PW reader survey

Econometric models make corrections

The big econometric forecasting models are making some midyear corrections—covering both 1989 and 1990 projections.

Generally speaking, this year's growth estimate has been raised fractionally—an increase that is more than being compensated for by smaller-than-previously-forecast business gains.

And in the price sector, this year's estimates have been raised somewhat—though a falloff to near previously forecast levels is foreseen for 1990.

Talks with analysts of the three models monitored semiannually by *PurchasingWorld* suggest that few are worried about any significant downturn.

To be sure, their estimates for next year aren't all that robust—1.4% as far as real GNP is concerned (*versus* the 2.0% estimate made in January) and only 1.0% for industrial production (*versus* the 2.2% earlier estimate). But the feeling is that this is all to the good.

The shift in the price climate will also be helped by expectations of leveling energy tags and a normal harvest which should put a lid on food costs. In any event, it should be noted that all three price indexes presented in the table alongside are now expected to sport decelerating advances in 1990.

In the case of the GNP price deflator and the consumer price index (both heavily weighted with inflation-prone services), 1990s price relief will be fractional. More to the point: These bellwether inflation indexes are expected to drop only about 0.2-0.3 percentage points—with 1990 average rates of advance put at 4.5% for the GNP deflator and 4.9% for the CPI.

On a somewhat more optimistic note is the forecast for finished producer prices—an area of more immediate concern to industrial purchasing managers. Here the decline in the rate of advance is put at over one and a half percentage points—from 5.4% in 1989 to only 3.7% in 1990.

Talks with spokesmen for the models indicate that several factors should be operative in bringing down the rate of advance in finished producer prices. Thus in addition to the aforementioned leveling off in both energy and operating rates, there is today's somewhat stronger dollar (which should keep a lid on import prices) and higher unemployment levels which will hopefully temper labor demands for big pay boosts.

On the unemployment front the consensus economic forecast calls for a 5.9% jobless rate in 1990—a not insignificant jump over the 5.4% level anticipated for 1989. And this could be why unit labor cost forecasts made by these same models (not shown in the table) also remain in the modest range.

Another change from the previous forecast worth commenting on: interest rates should begin to turn down—as the economy slows and inflationary pressures ease off. The latest estimate here calls for only a 10.2% prime rate for 1990—more than one percentage point under this year's estimated level.

What makes all these projections so impressive is that there is very little disagreement among the forecasting models examined. All three see deceleration in GNP and industrial production, all three see no recession and all three call for declines in both finished producer price increases and interest rates.

Also worth noting: these forecasts have experienced pretty good track records of late—particularly on the inflation front. Last July, the consensus forecast for 1988 called for a 2.4% increase in finished goods prices. The actual increase: 2.5%. Similarly, the average 4.0% forecast for consumer tags ended up at an almost identical 4.1%.

Finally, it should be emphasized that these same models remain bullish about 1991. Preliminary forecasts put GNP growth that year at near 3%, the ninth straight year of economic gain.

Continued pg. 42

What the econometric models see through 1990

	1989	1990
Real GNP (% change)		
DRI	2.6	1.4
Wharton	2.9	1.7
Merrill Lynch	2.6	1.2
AVERAGE	2.7	1.4
Industrial production (% change)		
DRI	2.9	1.4
Wharton	3.3	1.6
Merrill Lynch	3.2	0.0
AVERAGE	3.1	1.0
GNP price deflator (% change)		
DRI	4.5	4.2
Wharton	4.8	4.4
Merrill Lynch	4.9	4.9
AVERAGE	4.7	4.5
Finished producer prices (% change)		
DRI	5.5	4.5
Wharton	4.9	2.1
Merrill Lynch	5.9	4.4
AVERAGE	5.4	3.7
Consumer prices (% change)		
DRI	4.9	4.7
Wharton	5.3	4.7
Merrill Lynch	5.5	5.2
AVERAGE	5.2	4.9
Prime interest rate (%)		
DRI	11.3	9.4
Wharton	12.0	11.3
Merrill Lynch	10.9	9.8
AVERAGE	11.4	10.2
Unemployment rate (%)		
DRI	5.4	5.9
Wharton	5.4	6.0
Merrill Lynch	5.4	5.9
AVERAGE	5.4	5.9

Transport prices cool down

Transportation rate increases should stay in the tolerable range this year—with the average freight bill rising about 4%—actually a half a percentage point under last year's advance.

So say analysts at Wharton Econometric Forecasting Associates in their quarterly transportation rundown prepared especially for ***PurchasingWorld*** readers. WEFA isn't too worried about 1990 or 1991 either, anticipating only a modest overall acceleration in the rate of rise (to 4.6% and 5.0%, respectively).

Also on an upbeat note for transportation buyers: The latest estimates for both 1990 and 1991 are a bit under the 5.3% forecast made for these two years just three months earlier (*PW*, 3/89, page 32).

The Bala Cynwyd, PA-based consulting firm says the price downgrading stems from a change in thinking about overall economic growth. Specifically, business gains are expected to be somewhat harder to come by in the quarters immediately ahead.

No recession is forecast, but the 0.5-1.0% rate of GNP advance in some near-term quarters is expected to limit the real freight traffic advance (to only a 2% rate this year and 1.4% in 1990.). This, in turn, should reduce the upward pressure on freight rates.

Here's a more detailed rundown on what WEFA sees for each of the major freight modes:

- **Trucking:** Strong demand last year (tonnage was up 8.2%)—along with hikes in truck user fees, and fuel taxes on the state level and rising wage rates in an increasingly tight labor market for drivers—pushed truck freight rates up by an average of 4.5% for the year as a whole. And these same price pressures persist—plus an additional concern about an expected boost in the Federal tax on fuel.

Nevertheless, little acceleration in price rise is expected. Rate hikes should hit 5.0% this year, 4.7% in 1990, and 5.0% in 1991.

- **Rail:** The industry is coming off a good 1988 when revenue ton miles rose 5.2%. But prices for that year are estimated to have gone up only 3.4%—in part because of intermodal competition from trucking.

Future rail hikes will be a bit higher, but no major acceleration is in sight. Competition will continue to be a factor—and it could also prove to be a powerful tool in labor negotiations (a recent CSX agreement to reduce train crews to three could spread quickly to other carriers).

Another possible moderating factor: the productivity adjustment incorporated by the ICC for use in its Rail Cost Adjustment Factor (RCAF) used to determine permissible rate hikes. The adjustment will reduce the RCAF whenever productivity grows. Best bets for rate hikes then: Up 5.2% this year and 5.0-5.1% over the ensuing two years.

- **Air cargo:** Some tailing off in tonnage gains (last year's domestic and international totals rose 16.4% and 20.5%, respectively) is anticipated. On the other hand, increases will still be above the all-freight average—thanks to still increasing use of just-in-time inventory management and another relatively strong export year.

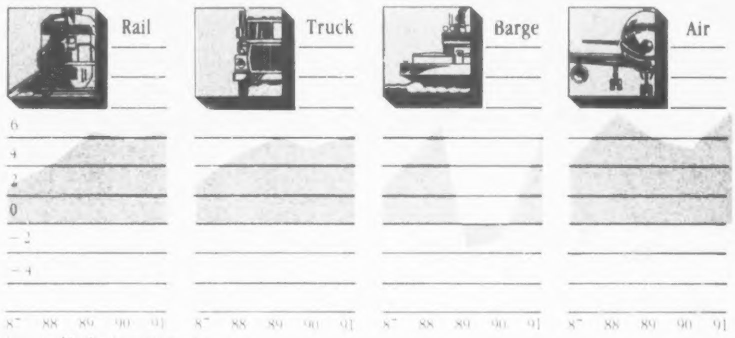
Price increases, too, will be somewhat smaller—about 5.0% this year *versus* 6.4% in 1988.

- **Water freight:** A sizable correction from last year's big 6.2% drought-inspired rate boost is all but certain. Assuming normal precipitation, rates (expected to decline 2.9% this year) should drop back to normal.

Beyond 1989 look for a slow rise—through only a small 2.8% increase is seen for 1990 (a reflection of the lingering impact of the rate correction just now getting underway). But by 1991, a fairly robust 4.9% advance is seen. **PW**

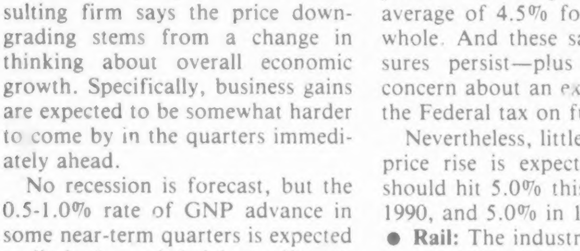
Freight cost outlook by mode

(percent increase over previous year)



PurchasingWorld freight rate index

(1982 = 100)



INDEX	% CHANGE
1981	11.0
1982	2.0
1983	3.0
1984	0.6
1985	4.0
1986	−1.2
1987	3.0
1988	4.5
1989	4.0
1990	4.6
1991	5.0

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THE BUYER'S MAGAZINE

AUGUST 1989

Systems Software Associates
Xerox
MSA
IBM

Purchasing software: readers quiz vendors

- Vendor-supplied software
- Murray: software copyrights
- Chemical runup over?
- Notes for new buyers

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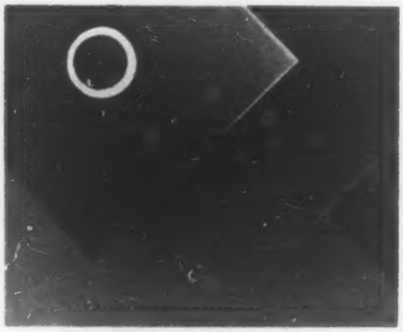

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PW POINTERS

But first, a correction...

In our May issue, we reported on some long-lived work gloves—except we got their life wrong. The gloves, instead of lasting *four* hours, as reported, actually last *24* working hours, and can be laundered twice into the bargain. Our apologies to Linda K. Ferrell, the buyer who found these gloves, and Jomac Products, the glove maker.

EDI flexibility gets contract

Flexibility to provide immediate electronic data interchange has assisted Pilot Air Freight in gaining a government shipping contract amounting to more than 14 million pounds of Navy materials a year.

According to Dick Morris of Pilot, a Navy GTA (guaranteed traffic award) was made to his company because of its flexibility and speed in providing EDI between its 62 domestic stations. The program will cover anything from ship gun turrets to electronic airplane components, which will be shipped in from the fleets to vendors in the U.S., repaired, then shipped back into the Navy pipeline. Major points of origin for the program will be Norfolk, VA, San Diego, CA and Cherry Point, NC. *Pilot Air Freight, Route 352, P.O. Box 97, Lima, PA 19037* **Circle 295**

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Air Management Industries has established its FAB Division to enable small and mid-sized companies to gain the advantages of lower manufacturing costs found in the Sunbelt without physically relocating. Top management personnel within the FAB will work with clients to establish full production requirements; when data is gathered, a plan is developed ranging in magnitude from the manufacture of small subassemblies to joint venture relationships in which Air Management handles the complete manufacturing of a product line, leaving the client only the responsibility for marketing and entering for production through a computer modem hookup. Air Management welcomes inquiries addressed to *P.O. Box 1738, Cushing, OK 74023* **Circle 294**

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Taboos of international trade

What to do and what *not* to do in international trade is the subject of this complete guide which offers to steer international business people around the multitude of pitfalls which can ruin a deal.

Expanding trade overseas can be a rewarding and exciting experience for a small business, but basic cultural and legal differences must be faced. Roger E. Axtell, an international expert and author, tells about those differences in his new "how-to" guide for U.S. firms wanting to get into international trade. The guide also tells how to start, where to go for help, how to make the first trip abroad, etc. Export laws, shipping, documentation, insurance and how to make certain you get paid properly are also covered. *John Wiley & Sons, 605 Third Ave., New York, NY 10158* **Circle 297**

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by Robert S. Reichard, editor-in-chief

Price indicators back off

Inflationary concerns are fading rapidly. And with good reason—most key price indicators are backing off from their recent high levels.

Especially noteworthy: The latest NAPM Business Survey Committee responses. the number reporting lower quotes topped those reporting boosts for the first time in nearly three years (34 months to be exact). Specifically, 18% noted lower prices compared to 16% noting increases. That's pretty encouraging compared to just two months earlier when only a minuscule 5% were lucky enough to get decreases—nowhere near the 43% being socked with new boosts.

Mirroring the drop-off in price pressures is the number of commodities reported to be up in price—only six—the fewest since December, 1986. Also 17 commodities were said to be declining (many of which were only recently rising).

The list of declines is impressive—including aluminum, brass, copper, nickel, zinc, benzene, ethylene, formaldehyde, methanol, MLK, phenol, phenokic resins, polyethelene resins, polystyrene, styrene, soybean oil and diesel fuel.

Upshot of all this: the NAPM price barometer (a seasonally adjusted diffusion index where 50 is regarded as neutral) dropped to 48.5—an eye-opening 20 points under the readings of just a few months earlier. The more comprehensive producer price index for durables is also looking a lot better these days. During the past six months, for example, the inflation rate here has been pegged at only about 1% at annual rate—down from the 2.7% pace of the previous half year.

Equally impressive is the decline in industrial spot material quotes. The index here has now been falling for three consecutive months. Point to keep in mind: this is a grass roots barometer—one that captures change at the first stages of demand. And traditionally this has signalled similar movements further on up the production line within a matter of just a few months.

Some of the declines here have been rather impressive. Double-digit drops have hit several nonferrous metals. And while steel lists have held for the most part, discounts have become somewhat easier to negotiate. Plastics, too, have been edging lower. And paper, after the big runups of the past year, now looks to be taking a breather.

Finally, don't forget oil prices. The price curve here has already topped out. And judging from rising OPEC output, some price declines are possible this summer and fall.

Not surprising, the Fed has also become a lot more optimistic about holding the line on inflation—and hence is already in the process of easing its pressure on the monetary brakes.

The attitude here is perhaps best summed up by the Fed Board of Governor's vice-chariman Manuel Johnson. He notes that PMs feel input prices will generally turn downward in coming months as factories face weaker demand—something that will lead to what he calls a "growth recession"—a phrase indicating decelerating economic gains.

This weaker demand, in turn, means improved availability. Indeed, factory utilization rates are already edging lower—giving PMs considerably more bargaining leverage.

What does it all add up to? One index of future price changes (prepared by the Center for International Business Cycle Research at Columbia University) has dropped sharply.

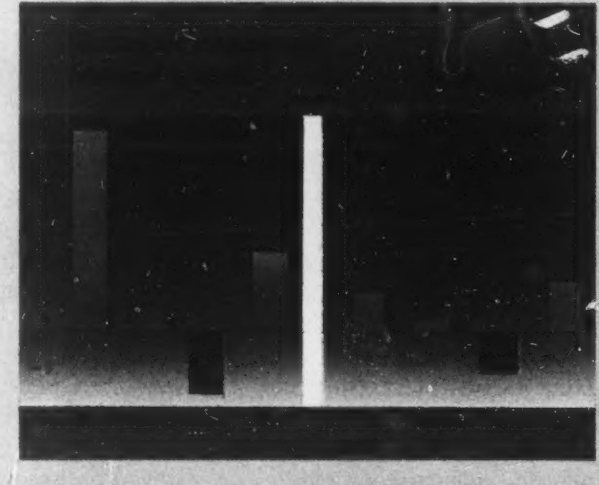
And econometric models, probably looking at the same basic price determinants, tell much the same story. Wharton Econometric Forecasting Associates (the WEFA Group) new sees the overall industrial producer price index (covering non-durables as well as durables) rising at only a 1-2% annual rate in the second half—a far cry from the 8-9% pace of the first six months of the year.

Semiconductor book-to-bill falls

The currently buoyant semiconductor market may be heading for a respite.

So say analysts at Henderson Ventures, a Los Altos, CA-based electronic research outfit. One sign of a coming slowdown: falling book-to-bill ratios. This bellwether indicator of industry health has been showing signs of slipping below 1—meaning that orders in some recent months have been below shipments.

Also indicative of a cooling off: 1) the rate of order



growth has been slowing and 2) inventories held by both OEMs and component manufacturers are beginning to rise.

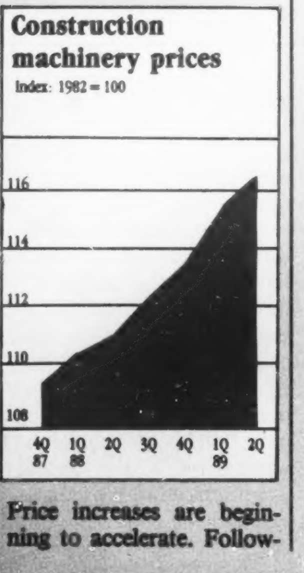
Why the flattening in demand? Among many factors, Henderson cites that sales of computers, the most important part of the end market, are slackening. The initial burst of PS/2 demand has been satisfied. And although there is an Intel 486 microprocessor on the near horizon, it does not appear to have the price-performance profile necessary to create a large new burst of demand in the PC market.

This demand slowdown, in turn, can be expected to impact on price. So will the fact that supplies of DRAMs and other high-priced short-supply ICs are being ramped up. This will create better market balance to the point where prices for all components can be expected to soften in the months ahead.

Combine these projections for lower demand and softer prices—and the end result is falling dollar demand. Specifically, merchant market purchases of semiconductors are projected to increase by only 6.6% this year—well under the 30%-plus advance of 1988. And a 9.8% plunge is seen for 1990. (See accompanying chart for details.)

Passive components are expected to follow a similar pattern. During 1989, these items are targeted to advance only 2.2%—compared to the 9.7% gain of last year. And 1990 purchases of these items could fall by upwards of 5%.

Construction machinery heads upward


Construction machinery prices

Index: 1982 = 100

Price increases are beginning to accelerate. Following last year's relatively small 3% advance, boosts so far this year may have already added another 5-6% onto the average purchase price. And by year end the increase could be approaching the 8-10% range. Biggest boosts look to be in front-end attachments, cranes, crawler-type tractors and off-highway trucks. Blame it all on good demand, rising production costs and low producer inventories. On the latter score, one large manufacturer estimates that more than half of its construction equipment is now in short supply.

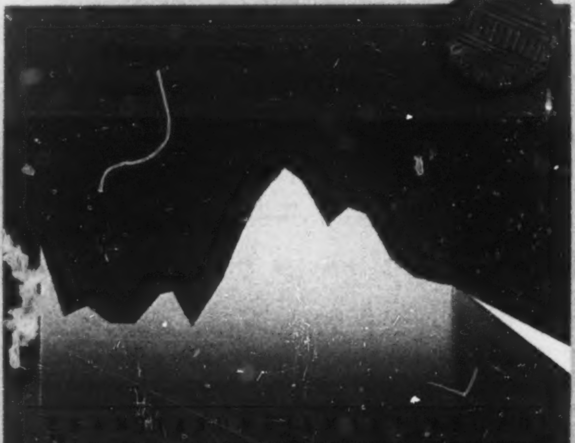
Copper gets reasonable

CURRENT SITUATION: The red metal is a lot more reasonable than it was a few short months ago. Much of the softening stems from a much more optimistic labor picture. Also contributing to overall market weakness: 1) less ebullient overall demand and 2) recent and announced increases in global output. In any event, **current quotes are now running more than 25% under the $1.50/lb. and higher peaks prevailing earlier this year.**

DEMAND: Ordering has slowed down a bit. Part stems from the improving supply outlook. Another factor could be the normal summer slowdown. But over and beyond all this are the reduced consumption requirements by the auto and construction industries. Another sign of easing: year-to-year service center shipment gains are beginning to slow down. **As for U.S. consumption gains for all of 1989, most forecasts suggest only about a 2% advance.**

SUPPLY: Availability should continue to improve—assuming, of course, no sudden big strike or other supply interruption. Thus, this year's world refined production should exceed demand by 50,000-130,000 tons. Also worth noting: the euphoria sparked a tremendous number of mine expansion plans. **Right now all signs point to about 1.5 million tons per year of new global production potential** over the four year period ending in 1992. Demand would have to increase about 3.7% a year to absorb that much additional capacity—and, as suggested above, consumption gains of this magnitude are not in the cards.

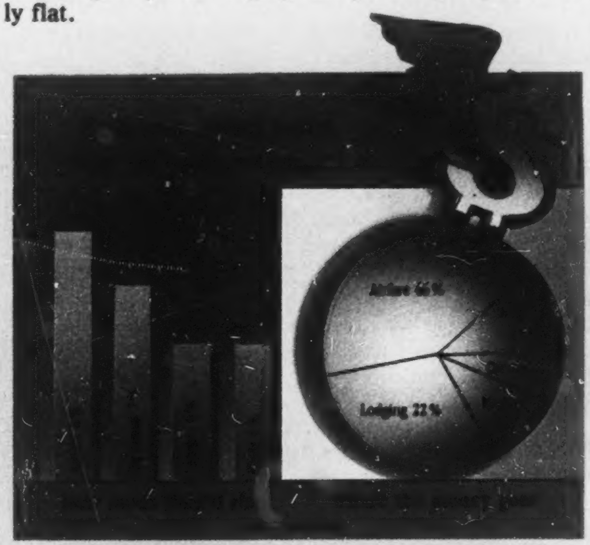
PRICE OUTLOOK: Count on continuing declines—with the red metal dropping down in the 85-95¢/lb. range by winter. Nor is any subsequent rally likely if forecasts for continuing new capacity additions and sluggish 1990 demand gains prove to be correct. **Cost trends also suggest price moderation**—and even the possibility of further price declines.



Travel costs go up in the air

Budget for continuing increases in business travel costs over the 12-month period ending 4Q 1990. So say analysts at Runzheimer, based in Rochester, WI. Their specific projections:

- **Airfares:** Another 8% boost is anticipated. That would be over and above the huge 25% or so hike in average business travel rates posted over recent quarters.
- **Car rentals:** The advance here should be an almost-as-large 7%. This is in addition to recent boosts forced by the dropping of collision damage waiver charges. Blame the new hikes on a used car glut—as the rental companies seek to make up for decreasing car trade-ins.
- **Lodging costs:** Averages will be up another 6%. Biggest boosts should be in mid-priced units. On the other hand, higher-priced lodgings will probably stay relatively flat.



- **Meal costs:** Figure on a 6% increase here, too. Blame it on the possibilities of more drought—coupled with last year's record hot summer, increasing wages and difficulties in finding service staff.

What does it all add up to? Runzheimer is putting the overall average gain over the four quarters near 7.1%. That's a bit above what the simple average of the four individual cost sectors would indicate—primarily because the fastest rising area (airfares) accounts for 44% of total travel dollars.

Paper supplies in better balance

CURRENT SITUATION: Finally some good news for buyers—the supply tightness of the past year or two seems to be giving way to better balance. This can best be appreciated by slowly declining operating rates in some sectors. All this is beginning to impact on prices.

Continued on page 11...

Sulfur prices headed down

Prices are edging lower. Thus, Frasch tags ex Tampa have just been reduced $4/ton (to $138/ton). Fear of Canadian imports, plus a general leveling in demand, are behind the new softness. On the Canadian question, customers are said to be lining up railcars to ship north-of-the border brimstone into the U.S. In any case, all this is in sharp contrast to last year when global tightness was sparking fears of a major shortage.

Molybdenum capacity abounds

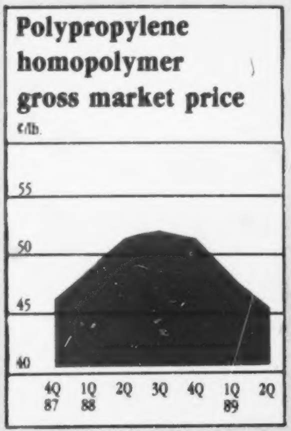
An attempt to post a 32¢/lb. oxide increase has failed to hold—with prices again falling to the $3.65/lb. level. Reason: softer demand from steelmakers—moly's major customers. Indeed, if current trends continue (production exceeding demand), the market may enter another period of oversupply. One thing for sure, there's plenty of capacity around. Current 1989 demand estimates, for example, remain at near 200 million pounds, unchanged from 1988 levels. But that's far under installed production potential which is now estimated to be up in the 260 million pound range.

Lead goes its own way

The heavy metal is bucking the trend toward weaker overall metal tags. In fact, prices have actually inched up a bit over the past few months (into the 39-40¢/lb. range). Even the normal summer weakness hasn't impacted on prices—and they could well move a bit higher this fall when a seasonal pickup normally occurs. Behind much of the bullishness: continuing gains in global demand. This year, total usage could reach 4.8 million tons—about 2% above 1988 levels. Longer run, however, the metal remains vulnerable.

Polypropylene drops off

Monopolymer grades have dropped off as much as 3¢/lb. over the past month—to around 41-45¢/lb. Copolymer tags are off, too—but until now the decline has been gentler. On the other hand, the latter could also be ready for a sizable fall as one big seller offers this grade at 4-5¢/lb. under levels quoted by most other producers. As in the case of most other thermoplastic volume resins, the decline can be traced to big capacity additions (12% this year).


Polypropylene homopolymer gross market price

Aluminum use increases, prices decrease

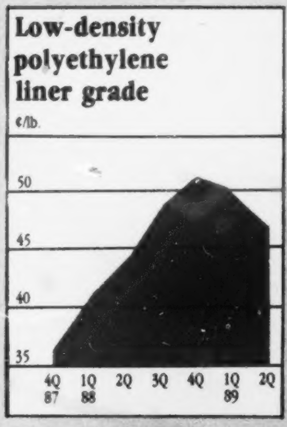
Ingot continues to slide--dropping into the 85¢/lb. range by mid-July—a far cry from this year's earlier $1.17/lb. peak. Improving supplies (global stocks are up 5% so far this year) are behind the slide. This is occurring despite a projected 2-3% boost in domestic shipments in 1989. True, the metal's construction market is down. But aircraft demand is taking off—and increased use of aluminum per car should offset the reduced number of vehicles sold. Next year should see some flattening out in overall demand. Coupled with new capacity, this should continue to put downward pressure on prices. Moreover, the long-term supply situation also looks good, as big new primary projects in Canada add significantly to global potential by late 1991.

Steel demand cools

Demand is beginning to taper off—with 3Q shipments now expected to fall under 20 million tons (*versus*] 22 million in the second quarter). And the final quarter's tonnage could drop even lower. Upshot: shipments for the year as a whole will be hard put to equal 1988's 84 million ton level. This demand pause, in turn, is making for some price softness. Indeed, there are already indications that spot prices on MR unprocessed sheet have dropped 3-7%—even after a $15/ton 2Q boost failed to hold. And there could be drops in other spot prices by as much as 5%. As such, overall composite tags (spot and contract combined) could be off as much as 3% by year end.

Polyethylene continues its fall

Prices on LDPE, HDPE and LLDPE have all dropped about 2-3¢/lb. over the past month—a continuation of a gradual downturn which first got underway at the beginning of the year.


Low-density polyethylene liner grade

Liner grade LDPE, for example, has been quoted as low as 38-39¢/lb. (*versus* the recent peak of 51.5¢/lb) and HDPE declines have dropped quotes into the 44-48¢/lb. range. Another sign of weakness: declining export prices, with liner grade LDPE going in the low 30s. Behind the slippage: 1) declining operating rates—90% now *versus* 94-96% last year, and 2) new capacity coming onstream this year—6% and 8% for LDPE and HDPE, respectively.

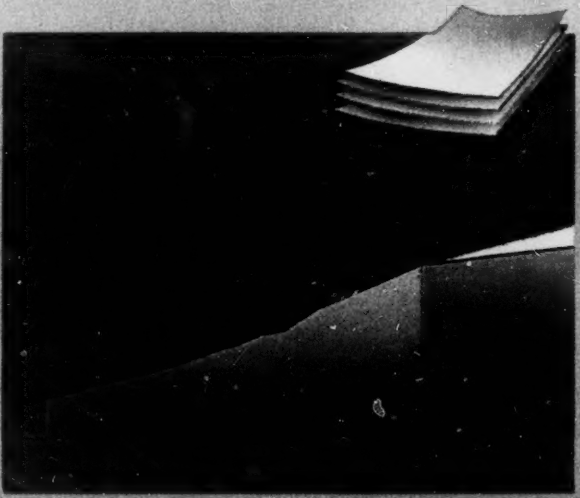
...Continued from page 10

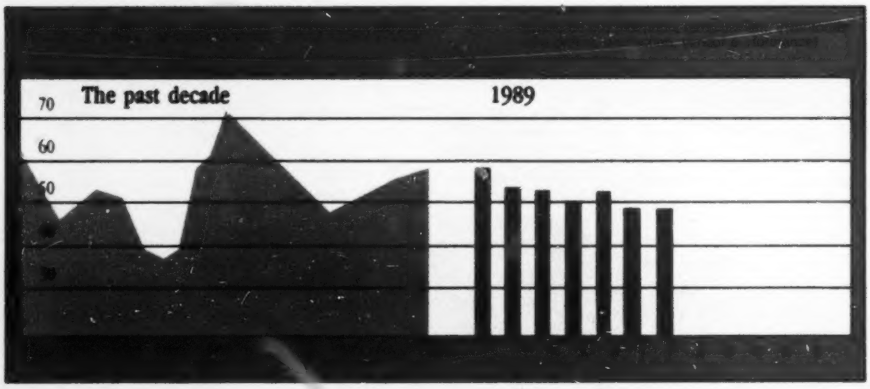
True, increases are still being posted, but they generally are quite small and harder to come by. A few have actually washed out—the most notable being the $30/ton hike in linerboard, where prices are still at year-ago $410/ton levels. There have also been a few rollbacks in coated papers—and discounts are not all that uncommon in hardwood pulp, tissue papers and newsprint.

DEMAND: Modest growth still seems assured. At this stage **another 4-5% advance in paper and paperboard production (to near 79 million tons) seems likely.** That would be pretty much in line with last year's gains but well under the 7.4% spurt of 1987. But there will be lagging sectors. Thus coated groundwood will do little more than equal last year as some inventory drawdown occurs.

SUPPLY: Heavy plant and equipment spending (projected to rise more than 40% in 1989) tells the story here. This gain will be more than enough to offset somewhat higher demand—pushing operating rates lower. Example: the coated groundwood utilization rate is expected to drop a significant five percentage points this year (to 92%). More modest 1989 decreases are seen for uncoated free sheet and linerboard—both expected to drop two percentage points. And the latter could well drop another three points in 1990 as corrugated demand gains slow. **All these, incidentally, are well under preferred rates which for the industry as a whole is put near 97%.**

PRICE OUTLOOK: The slow deceleration in rates of advance will continue. Reason: the relatively low operating rate projected have historically generated price competition in this industry. Best bet then: **only a 1-3% overall increase over the next six months.** This more restrained pattern should persist well into 1990 as the industry adjusts to huge chunks of new capacity (estimated by DRI at 9.9% this year and 6.7% in 1990). This should hold down converted product tags.





KEY ECONOMIC TRENDS

Slowdown continues

Growth deceleration is becoming increasingly apparent.

Factors behind the slowdown include 1) increasing reluctance on the part of consumers to spend on big-ticket items, 2) the somewhat more buoyant dollar which is beginning to hurt exports and encourage imports and 3) the fact that after six and a half years of constant growth, the longest peacetime expansion in history may be temporarily running out of steam.

All this is being mirrored in recent less-than-buoyant readings of leading economic indicators. The government index has slipped—and so has the widely monitored NAPM Business Barometer (see chart).

More important, this latter yardstick has remained below the neutral 50 level for the second straight month—suggesting that gains over the next quarter or so won't be all that easy to come by.

Robert Bretz, who compiles this index, notes that so far this year readings have averaged out at only 51.4%. He adds that if this average were to continue for the rest of the year it would be consistent with real GNP growth of about 2.3%.

While well under last year's 3.9% advance, this figure is still in the plus column—and that's an important point to keep in mind. Bretz, for example, says the index would have to fall below 44 before signalling a negative real GNP for the year—and most analysts just don't see this happening.

This basically "soft landing" scenario is based on more than just wishful thinking. Sure, there are the weaknesses detailed above. But there are also some strong points—most notably today's low stock/sales ratios, the easing of credit in recent weeks, and still relatively strong capital spending.

Even foreign trade doesn't look all that bad. Thus while the first chart suggests that net real imports (imports minus exports) may be bottoming out, totals remain well under 1986-87 peaks. In any case, the dollar would have to appreciate by another 10-20% to give foreign firms a really significant advantage again—and that just doesn't seem to be in the cards.

Meantime, the considerable strength in plant and equipment spending can be appreciated by looking at non-defense capital goods orders (second chart). True, figures are off a bit from recent peaks. But they still remain far above year-earlier readings.

More important, they seem to support recent surveys which show capital outlays running a strong 6% ahead of a year ago in real terms. That's well above last year's small 1% real increase.

Somewhat less ebullient, however, are disappointing car sales (last chart). They're running at less than a 10 million annual rate so far this year—considerably under last year's 10.6 million overall figure.

This, in turn, has prompted Detroit to lower its sales targets. A recent Ford projection, for example, sees combined auto and truck sales reaching only 14.7 million units this year—well under last year's 15.4 million total.

Finally, job data also indicates some slowdown—but again without a recession. Thus while non-farm

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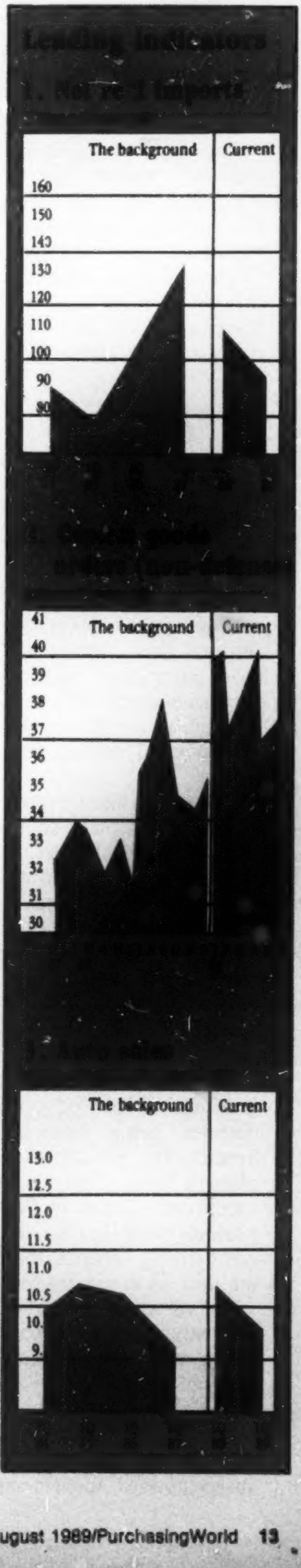

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employment gains lag a year ago, they are still quite considerable—with about 200,000 jobs still being added each month.

The fact that average overtime remains in the fairly high 3.8 hour range also has to be regarded as a reassuring sign; for expensive overtime is usually the first thing to be cut when things get really bad. And that's just not happening.

CURRENT PRICES

PPI confirms price drops

Uncle Sam's bellwether producer price index is confirming what more and more buyers have been experiencing in recent days: A noticeable dropoff in overall industrial pricing pressures.

Indeed, the latest government survey actually shows a fractional 0.1% decline from the previous month. And preliminary indications suggest a similar movement when the next report is released in a week or two.

Particularly encouraging, at least from the buyers' vantage point, are the growing number of price declines being reported. Specifically, in the sampling of 50 or so categories monitored monthly by ***PurchasingWorld*** in the accompanying chart, there are now 16 minus readings *vis a vis* a month earlier. You would have to go back a long way to match these kinds of figures.

Spearheading the downward trek this time around is energy—reversing the sharp upward movements of earlier this year. On the downside here were crude oil, gasoline, natural gas, home-heating oil, diesel fuel, jet fuel and liquid petroleum gas. These more than offset small boosts in lube oils and electricity.

Metals were also quite weak—as copper, aluminum, zinc and most precious metals all dropped. Steel also was fractionally lower—though this does not show up in the official index because reported steel quotes are mostly list-oriented.

Fairly significant declines were also noted in industrial chemicals, plastic resins, fertilizer products, synthetic rubber and paperboard. But inedible fats and oils as well as synthetic fibers managed to buck this general downdrift.

Also inching down (though only by about 0.1%) were construction materials. Declines in nonferrous wire and cable, flat glass and plastic building products were more than enough to offset advances in softwood lumber and switchboard items.

All in all, only capital goods, among the major index subsectors, managed to show some acceleration—rising 0.7% this past month *versus* only 0.4% during the previous 30-day period. On the upside here were ships, civilian aircraft, construction machinery, tools and dies, transformers and even office equipment.

Behind this acceleration: strong demand as industry makes good on its earlier predictions calling for a 6% increase in real plant and equipment spending this year.

Suppliers less bullish

Suppliers are becoming a bit less bullish—with fewer anticipating increases in sales and orders over the current quarter. At least that's what manufacturing executives are telling Dun & Bradstreet survey takers.

But this is not all bad. As Joseph Duncan, corporate economist for D & B puts it, "Expectations remain at high levels, lending support to the 'soft landing' scenario—and making a full-blown recession in the second half of the 1989 extremely unlikely."

Indeed, the slowdown is having some positive effects as far as buyers are concerned: the number of manufacturers expecting higher prices *vis a vis* a year ago is beginning to fall off.

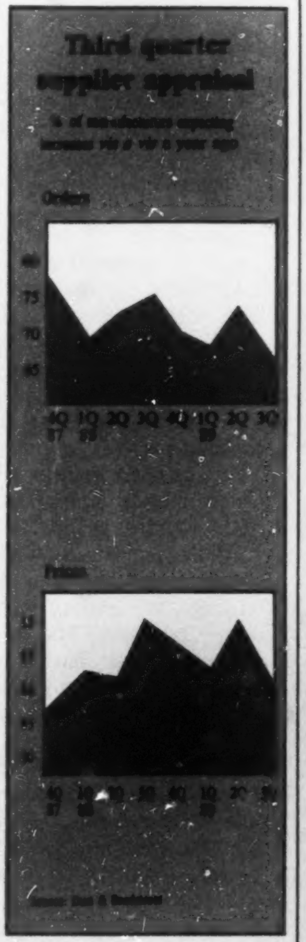
Three months ago, when the survey was last taken, some 50% of factory executives were projecting higher price tags for that quarter. Now the percentage has dropped to 41—the lowest such level in nearly two years (see accompanying chart).

The gradual deceleration in demand is also expected to impact on inventory strategies. Example: only 36% expect to increase their holdings over the current 3-month period.

Compare that to just three months earlier when the accumulation rate was 43%. Also worth noting: the number contemplating inventory paring is growing—16% currently *versus* only 10% three months ago.

Coming back to demand, the 67% of respondents looking for order gains, while still impressive, is significantly under the 74% reading of the 2Q. D & B's Duncan feels that, in large part, this is due to the stronger dollar—something which is making U.S. goods less competitive in foreign markets.

But as noted, Duncan remains basically optimistic—adding that the recent drop in interest rates, coupled with still relatively strong export demand, "should continue to boost manufacturers' sales."



PROCUREMENT STATUS REPORT

Most shortages are gone

The slower economic growth of the past few months has just about eliminated most procurement problems. Price inflation has certainly eased, leadtimes are steady or even shrinking a bit in some cases, and most shortages are now nothing but an unpleasant memory.

Looking at leadtimes first—***Purchasing World's*** exclusive index here is again being clocked in slightly under the neutral 50 mark (48 to be exact). Implication: Slightly more items are coming in than are stretching out these days.

Further confirmation on improving vendor performance comes from the NAPM Business Survey Committee's speed-of-delivery tally. Specifically, more vendors report faster than slower deliveries for the second straight month.

More important, the gap is widening. Thus the current advantage in favor of faster deliveries is eight percentage points. A month earlier the favorable gap was a minuscule one percentage point.

Not surprising, the NAPM vendor delivery index (50 is again neutral) fell to 47.5 this past month. That's the lowest level in nearly four years and clearly signals improved market balance.

This better balance is also indicated by a sharp decline in the NAPM list of items in short supply. There were only 10 at latest count, the fewest since October

A better supply situation is also being reflected in the reluctance to add to inventories. ***PW's*** survey on this subject (detailed elsewhere in this issue) certainly would seem to confirm the close-to-the-vest stance. So would new NAPM queries showing 1) stock declines every month this year and 2) the relatively few PMs (only 18%) who are committing 90 days or more in advance for their production materials.

Operating rate estimates are also upbeat—at least from the buyer vantage point. Significant declines in utilization rates, for example, have recently been noted in the paper, chemical, plastic resin and steel areas.

And while all this certainly doesn't make for a return to the all-out buyers' markets of a few years back, it does suggest a lot better balance—and with this a lot more bargaining leverage.

Workstations in battle array

A fiercely competitive battle is brewing in the workstation area, as this relatively sophisticated piece of computer equipment gears up for an all-out fight with high-end personal computers.

Producers of the latter aren't sitting on their hands either. PC makers feel, for example, that their new high-end machines—enhanced by faster processing, improved graphics, etc.—can capture some of the workstation's bread and butter CAD-CAM business.

But whether they succeed or not remains to be seen. Workstations are fighting back hard with RISC processing, top-grade graphics, networking capabilities, and a host of other pluses. Their aim: To offer buyers a lot of machine in the relatively low $5,000-10,000 range.

In any case, some workstation producers now make equipment selling for $7,000 or less. And the hope is that this will attract current PC users involved in software development, desktop publishing, data processing, finance and other applications.

One thing is for sure, workstation prices are falling (see chart). Thus the average price (which includes expensive—up to $60,000—

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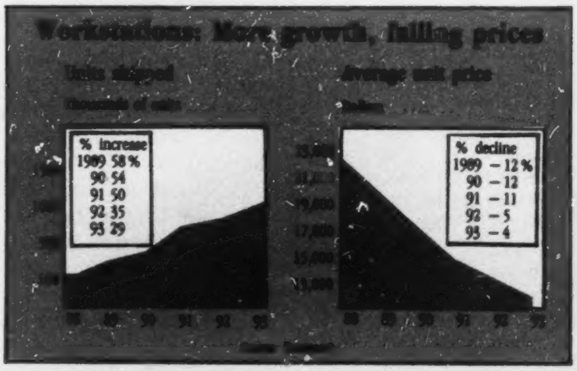

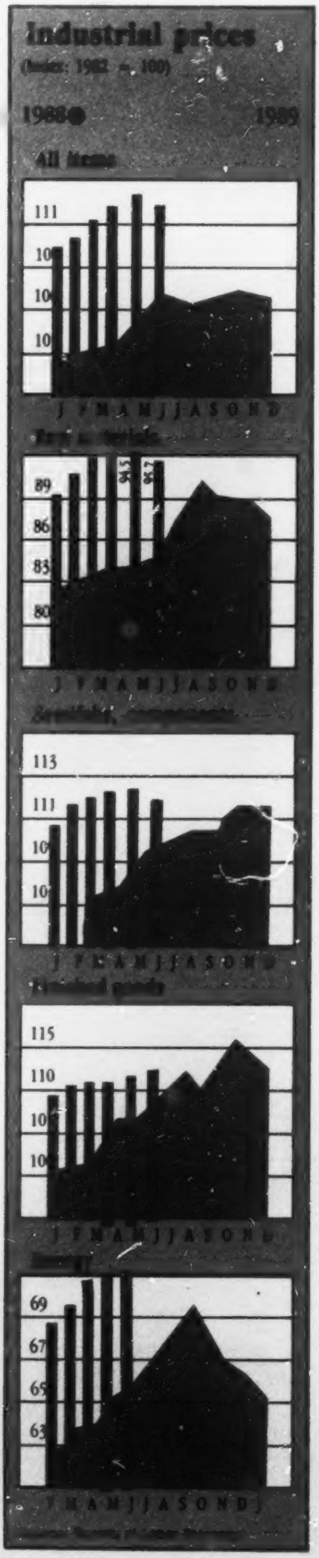

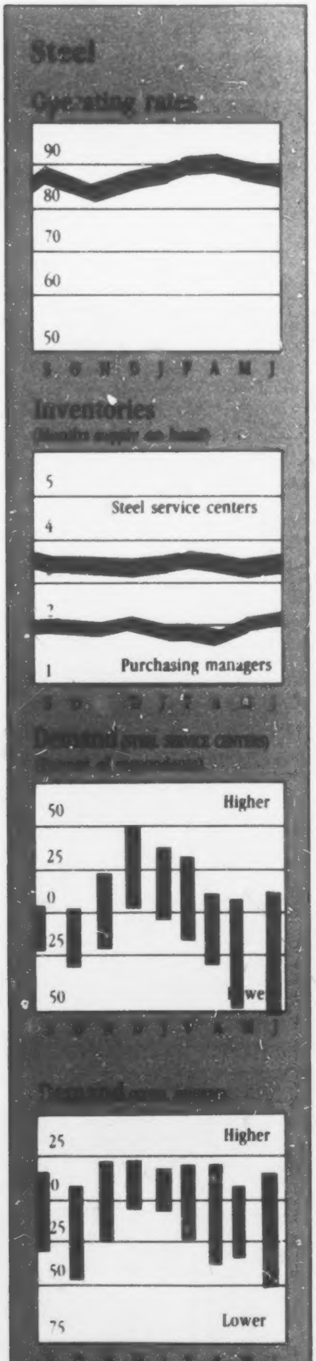

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machines as well as cheap models) is expected to fall about 12-13% annually over the next few years. And if you zero in on low-end machines, the declines are likely to be even more precipitous.

On the other hand, few see prices falling much under $5,000. But with increasing performance, this price range should become even more attractive to potential buyers.

With this in mind, Dataquest—a San Jose, CA-based research outfit—projects some impressive near-term unit sales gains: better than 50% annually on a global basis over the next few years—with only a slight tapering off into the 30-35% range in 1992 and 1993 when the market finally begins to mature.

STEEL SCENE

Steel prices topping out

Steel prices may be ready to top out—with maybe even some modest erosion possible in the months ahead.

At least that's what service centers are telling the Steel Service Center Institute (SSCI) these days. In any event, an impressive 43% of the group's members now feel their replacement costs will be lower six months ahead than they are today.

That's the biggest such percentage in years and is far above the 8% who feel small (2-5%) advances are possible over the same time span. Contrast this last figure to early 1988 when as many as nine out of ten respondents were betting on near-term price increases.

Lower prices, incidentally, are also being projected by the big econometric models. Wharton Econometrics (the WEFA Group) sees the composite price (all grades, all transactions) falling to $523/ton by the 4Q—about 3% under the average 2Q 1989 level.

The rationale behind all these projections is relatively simple: demand is falling—and coupled with growing availability, this is making the market a lot more competitive.

On the demand front, for example, the majority (52% to be exact) of buyers queried by the NAPM Steel Committee say they will be taking in less-than-current tonnages of steel over the next quarter. This far outweighs the 7% who feel some increases in their metal purchases may be in order.

Put another way—the gap between those contemplating decreases and those contemplating increases has soared to 45 percentage points. Compare that to as recently as March when increases actually predominated.

This same picture is also presented by the nation's steel service centers. Specifically, 54% now expect their incoming orders to drop off over the next three months—while only 8% see gains. The gap here is 46 percentage points—almost identical to that indicated by the nation's top steel buyers.

These lowered expectations mean that service center overall shipments—after running virtually level with 1988 during the first half of the year—may actually turn down a bit when the final 1989 tally is in. SSCI President Andrew G. Sharkey feels the yearly tonnage will slip 3-4% under last year's peak 23.5 million ton level.

The big problems, he says, are in the construction and auto markets—and as such, service centers may also have to cut back on inventories. Following up on this latter point, Sharkey adds, "There's no question that SSCI members want to decrease inventory levels that are again approaching seven million tons."

The latest SSCI report backs up this likely inventory paring. Thus for two months running more than two out of every three respondents say their stock levels are too high compared to current shipments. That's a big jump from as recently as April when only 43% felt their holdings were on the high side.

PMs, too, seem determined to cut back on steel tonnages. An even more impressive 74% here say they'll be aiming at lower steel stock levels over the next six months. That's the highest such figure in years and could well represent some attempts to cut back after recent modest hedging against possible strikes.

Another factor leading

Continued...

Import prices

(compared to domestic)

Steel buyers

ABOVE 52%
SAME 22%
SLIGHTLY BELOW 26%
SUBSTANTIALLY BELOW 0%

SERVICE CENTERS (carbon)

ABOVE 2%
SAME 85%
5-10% BELOW 13%
10-20% BELOW 0%
OVER 20% BELOW 0%

...continued

to tighter inventories: increasing availability and fading fears of shortages. Only scattered fears of stockouts are noted—and then only in the plate, bar, heat-treated, electrical and coated sheet areas.

More important, some 82% of surveyed PMs see no problems at all over the next six months. That's more than double the 34-35% problem-free figure noted as recently as this spring.

This month's breakdown

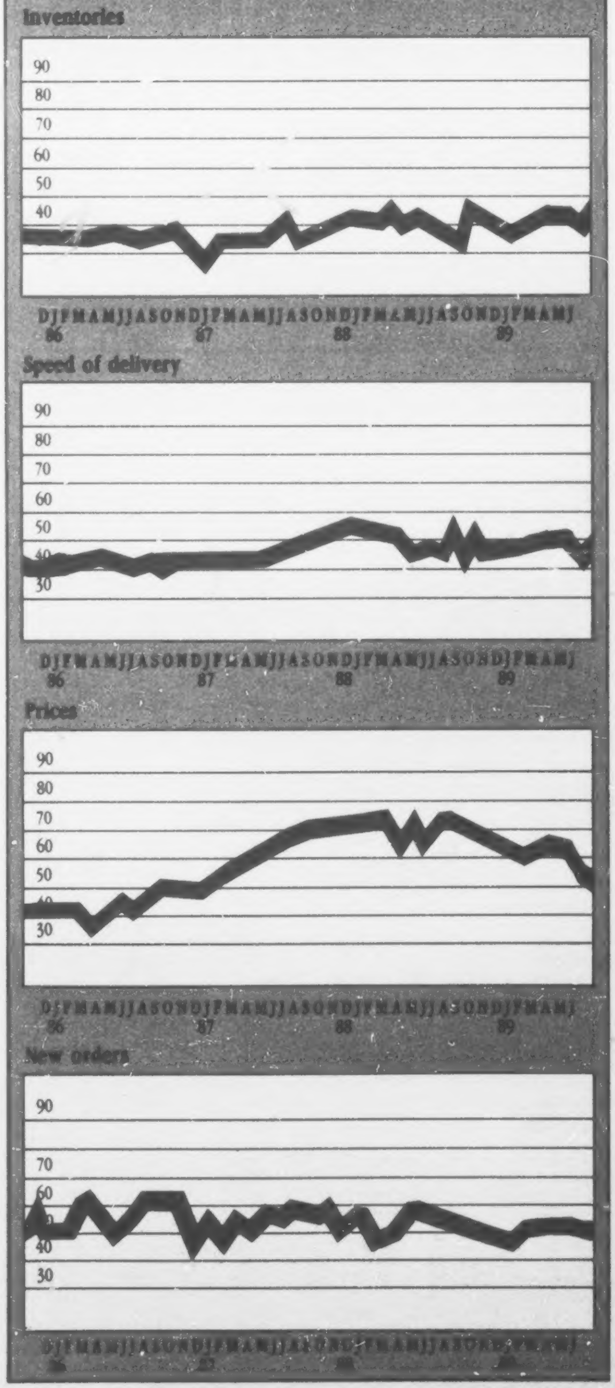
Index: 1982 = 100

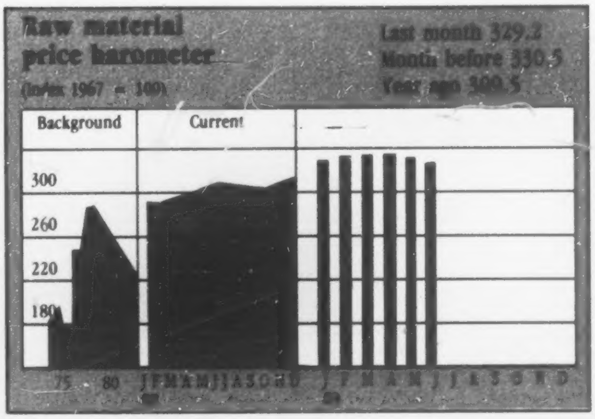
	Latest level (June)	% change from: Month ago	Year ago
Bearings	124.5	−0.2	12.2
Bolts, nuts, etc.	111.9	1.1	4.8
Chemicals, inorganic	108.0	0.1	7.0
Chemicals, organic	117.6	−2.9	10.1
Concrete products	111.2	0.4	1.0
Corrugated cartons	112.8	−0.3	1.9
Cutting tools, small	110.0	0.2	2.8
Electric lamps (bulbs)	124.0	0.0	−1.6
Electronic components	119.6	0.1	1.7
Fans and blowers	117.6	−0.1	3.8
Foundry and forge products	114.6	0.3	4.7
Fuel oil (residual)	51.2	3.6	17.2
Furniture, commercial	128.7	0.2	4.0
Gasoline	74.8	−2.7	26.4
Glass, flat	110.3	−0.6	1.1
Glass containers	116.4	0.3	3.7
Gypsum products	109.1	−1.4	−1.2
Hand tools	127.6	0.3	6.0
Hand tools, power driven	116.1	0.2	4.0
Industrial furnaces	124.1	0.1	3.3
Integrating and measuring instruments	118.6	0.4	3.4
Internal combustion engines	113.5	0.0	2.3
Lubricating oil	111.3	4.2	5.6
Lumber millwork	128.1	0.1	5.1
Material handling equipment	111.9	0.5	4.3
Metal containers	110.7	0.2	0.4
Metal mill shapes (nonferrous)	135.6	−2.2	4.3
Metal tanks	111.2	−0.4	5.9
Motors and generators	129.2	0.2	6.4
Motor trucks	128.6	−0.3	4.0
Office and store equipment	109.3	0.6	2.8
Paperboard	141.3	−1.5	5.4
Paper boxes and shipping containers	130.3	0.3	5.0
Paper office supplies	121.4	−0.7	6.1
Paint	119.2	0.3	6.4
Plastic resins	138.8	−0.9	5.8
Precision measuring tools	125.3	−0.2	3.2
Pumps and compressors	115.1	0.4	5.7
Refractories	119.9	0.2	5.4
Rubber belts and belting	112.3	−0.1	6.7
Scales and balances	106.3	0.1	0.4
Steel products	114.8	0.1	3.7
Switchgear	119.3	0.3	5.2
Textiles, synthetic fibers	106.1	1.3	9.8
Textiles, gray fabrics	114.5	0.5	−0.1
Tires and tubes	98.0	0.0	4.5
Transformers and power regulators	117.7	1.4	9.5
Welding equipment	122.3	0.0	3.8
Wire and cable	143.4	−3.1	5.9

NAPM procurement trends

(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.





Raw material price barometer

(Index 1967 = 100)

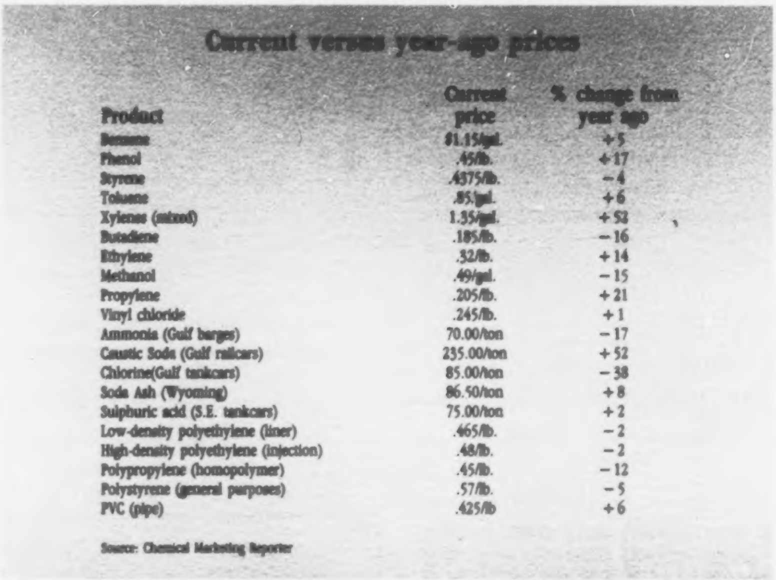
Last month 329.2
Month before 330.5
Year ago 300.5

Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	23.90	23.90	23.90
Steel, bars, divd. Phila., cwt., merchant quality	18.70	18.70	16.50
Steel, bars, Pitts., cwt.	18.70	18.70	16.50
Steel, bars, C.R., Pitts., cwt.	25.20	25.20	19.45
Steel, plates, Pitts., cwt.	23.75	23.75	22.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	22.75
Steel, sheets, C.R., Detroit, cwt.	29.65	29.65	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.844	.930	1.220
Antimony, N.Y., dealer, lb.	.98	.95	.95
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	1.70	1.81	1.71
Brass, yellow, [sheet], lb.	1.66	1.77	1.66
Cadmium, N.Y., dealer, lb.	6.10	6.80	8.00
Copper, electrolytic, wire bars, refd., lb.	1.07	1.18	1.07
Copper sheet, over 24 in., lb.	1.79	1.90	1.79
Lead, common, N.Y., lb.	.39	.38	.36
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.58
Mercury, 20 fl. lots, N.Y., fl.	290.00	295.00	370.00
Molybdenum, oxide, dealer, lb.	3.48	3.70	3.39
Nickel, cathode, dealer, lb.	5.45	5.65	6.60
Platinum, dealer, oz.	508.00	496.00	543.00
Silver, N.Y., oz.	5.36	5.21	6.97
Tin, N.Y., dealer, lb.	4.62	4.64	3.32
Zinc, Prime West, East St. Louis, lb.	.80	.85	.66
Zinc, die casting alloy, No. 3, lb.	.880	.930	.735
PAPER			
Uncoated book #3 offset, ton	1020.00	1020.00	920.00
Watermarked bond, ton	1095.00	1095.00	1070.00
Gummed sealing tape, carton	18.68	18.68	17.71
Grocery sacks, ton	495.00	495.00	455.00
Solid bleached paperboard, ton	780.00	780.00	685.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	410.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.286	.282	.276
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.22	1.22	1.22
Cotton middling, 1", N.Y., lb.	.648	.611	.577
Printcloth, 48", 80x80, N.Y., spot. yd.	.50	.50	.52
Army duck, 37", 13 oz., yd.	1.40	1.40	1.51
Blended printcloth, 64", 78x54, yd.	.780	.775	.650
20s combed yarns	1.89	1.85	2.00
Wool 64s, Staple, lb.	3.50	3.75	4.50
CHEMICALS			
Acrylonitrile, tanks, lb.	.400	.400	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	65.00	103.00	100.00
Benzene, petroleum, tanks, Houston, gal.	.97	1.22	1.08
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.55
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.845	.845	.735
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.49	49	.55
Naphthalene, crude, tanks, lb.	.16	.16	.22
Phthalic anhydride, tanks, lb.	.41	.41	.35
Polyethylene resin, low density liner film grade (market place), lb.	.440	.465	.465
Polypropylene, homopolymer grade (market price), lb.	.430	.450	.400
Polystyrene, general purpose grade (market price), lb.	.545	.565	.600
Polyvinyl chloride, pipe grade (market price), lb.	.405	.415	.420
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.425	.470	.450
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	138.00	142.00	127.50
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	1.020	1.020	.870
Xylene tanks, gal.	.95	1.45	.87
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	334.33	328.56	330.55
Lumber 2x2 pine, mbf, cl	321.51	317.14	321.85
Plywood, plyform, ¾", msf, cl	608.72	602.66	578.60
Plywood, ⅝", msf, cl	354.72	361.53	412.45
Cement, bulk, ton, tl	63.14	63.14	66.39
Sand, ton, cl	7.12	7.12	7.43
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	48.67	48.53	48.01
Crushed stone, 1½", ton, cl	N.A.	N.A.	N.A.
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	89.59	89.10	N.A.
Reinforcing bars, whse base; per cwt	22.67	22.79	20.72
Asphalt paving AC-20	108.22	109.36	121.95
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	N.A.	N.A.	N.A.
Concrete sewer pipe, 24", prem. joint, per foot, cl	17.89	17.89	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	20.55	20.50	14.70
Diesel (reseller rack, Chi), gal.	.4950	4950	.4275
Fuel oil No. 2 (N.Y.), gal.	.4885	.4950	.4040
Fuel oil No. 2 (Gulf spot), gal.	.4675	.4875	.3900
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	19.25	20.00	15.75
Gasoline (reg lded NY), gal.	.6085	.7080	.6125
Gasoline (reg unlded NY), gal.	.5885	.6955	.5900
Kerosene (reseller rack, Chi), gal.	.5810	.5775	.4750
Propane (Mt. Belvieu, Tex), gal.	.1988	.2013	.1900
SCRAP MATERIALS			
Steel, No. 1, hvy., divd., Pitts., ton	102.00	110.00	120.00
Steel, No. 1 hvy., divd., Chi., ton	108.00	113.00	120.00
Copper, No. 1, East, wholesale buy, divd., lb.	.935	1.040	.885
Copper, No. 2, East, wholesale buy, divd., lb.	.860	.945	.780
Brass, red, East, wholesale buy, divd., lb.	.895	1.000	.845
Brass, yellow, East, wholesale buy, divd., lb.	.570	.575	.470
Alum., old sheet/cast, E., wholesale buy, divd., lb.	.525	.635	.655
Alum., mixed clip., E., wholesale buy, divd., lb.	.600	.715	.730
Zinc, old, East, wholesale buy, divd., lb.	.38	.38	.24
Lead, clean solids, East, wholesale buy, divd., lb.	.22	.22	.22
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	Nom.	20.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	10.00
Old newspapers, Chi., ton	Nom.	Nom.	10.00
Old white ledger, Chi., ton	75.00	75.00	85.00

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Chem runups are over



Current versus year-ago prices

Product	Current price	% change from year ago
Benzene	$1.15/gal.	+5
Phenol	.45/lb.	+17
Styrene	.4375/lb.	−4
Toluene	.85/gal.	+6
Xylenes (mixed)	1.35/gal.	+52
Butadiene	.185/lb.	−16
Ethylene	.32/lb.	+14
Methanol	.49/gal.	−15
Propylene	.205/lb.	+21
Vinyl chloride	.245/lb.	+1
Ammonia (Gulf barges)	70.00/ton	−17
Caustic Soda (Gulf railcars)	235.00/ton	+52
Chlorine(Gulf tankcars)	85.00/ton	−38
Soda Ash (Wyoming)	86.50/ton	+8
Sulphuric acid (S.E. tankcars)	75.00/ton	+2
Low-density polyethylene (liner)	.465/lb.	−2
High-density polyethylene (injection)	.48/lb.	−2
Polypropylene (homopolymer)	.45/lb.	−12
Polystyrene (general purposes)	.57/lb.	−5
PVC (pipe)	.425/lb	+6

Source: Chemical Marketing Reporter

Chemical markets have begun to lose some of their zip.

Sure, demand is still rising. But gains are now relatively modest—only in line with today's slow-growing economy. And the big price runups of last year are starting to taper off—though on balance, tags are still in a rising trend and remain well above year ago levels in most instances (see accompanying table).

A look at recent numbers documents the general deceleration. Chemical output gains during the first half of the year, for example, were just under 4% at annual rate--well under the 8%-plus advance racked up for all of 1988.

And a similar trend is noted for chemical quotes. Price increases in recent months have averaged out in the 4-5% annual range—less than half last year's 9%-plus overall spurt.

To be sure, a spate of new 3Q increases has been posted. But it should be noted that the increases are not only smaller, they're not quite as numerous as they were at the start of other recent quarters.

Also worth noting: There are now even a few scattered declines cropping up—for the first time in years. Thus such key product lines as ethylene, benzene, styrene, phenol, thermoplastic commodity resins and fertilizers such as ammonia, all have softened over the past few months.

And even some of the big inorganics are somewhat less buoyant. Included here are sulfur, where some easing is noted in recovered material, and in soda ash where a $12/ton hike has failed to hold up.

Increasing supplies as well as smaller demand gains could be a factor in the flattening out of the price curve. New capacity in recent quarters has been coming onstream at a somewhat faster clip than new orders. Upshot: the industry utilization rate is now fractionally under what it was at the beginning of the year.

Also on a somewhat bearish note: there has been a slow rise in industry inventories. True, some of this has been needed to meet expanded sales volume—but not all of it. Thus the finished chemicals stock/sales ratio at latest report was up near a 1.35 months' supply—about 3% above year-earlier readings.

On the other hand, bullish news is still the order of the day on the import-export front. Specifically, year-to-date figures show a 20% rise in the U.S. trade surplus *vis a vis* 1988 readings.

The big question, of course, is where do we go from here? Assume the standard economic growth forecast for the rest of the year into 1990 (2.5-3% annual GNP growth)—and the best bet seems to be for more of the peaking out tendency that has recently become evident.

Keeping the above in mind, here's a brief rundown (summarized in the market trend chart) on what you can probably expect in this close-to-

$250-billion industry over the next year or so:

- **Demand:** The overall advance will continue to slow down—with maybe a 3% annual rate of gain during the last six months of 1989—and only a slight pickup to around 3.5% for 1990 as a whole.

Further confirmation of a less ebullient industry comes from producers themselves. A recent survey, for example, finds them putting the real 1989 demand gain at 3.7%—a far cry from last year's big advance.

But, as might be expected, there will be some subsector variations. Plastic materials should lead the pack—growing at about a 6% rate over the rest of the year. And even the 4.5% gain seen here for 1990 will be somewhat above the all-chemical industry average.

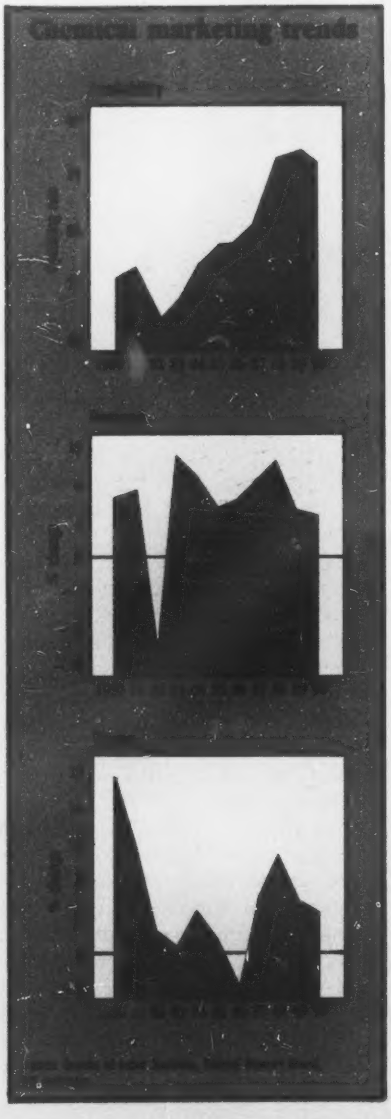
On the other hand, organics, which recently have been growing at near-double-digit rates, will slow down substantially—to around a 5% rate in the second half of 1989 and to only 4% for 1990 as a whole.

And at the bottom will be paints (actually declining because of the construction slump) and agricultural chemicals where recent negative production figures are expected to spill over into 1990.

- **Availability:** The demand decelerations detailed above will be occurring at a time when a lot of new capacity is scheduled to come onstream. Lest there be any doubt on that score, take a look at the industry's 1989 capital spending plans. One recent survey puts the dollar increase at over 20%—and this is on top of 1988's even larger 24% spurt. No matter how you slice it, this should add up to a lot of new production potential.

As such, the current 88% operating rate could well slip a percentage point or two by next spring or summer. And in some cases where big new chunks of production potential are slated to come onstream, the drop could be a lot more precipitous than that.

> *"Chemical output gains during the first half of the year were well under the 8%-plus advance racked up for all of 1988."*



Chemical marketing trends

Thus it is highly unlikely that plastic resin demand gains in 1989 and 1990 will equal the 18% increase in new capacity scheduled here over this two year period.

Indeed, the 91% operating rate for the plastics industry last year (one that made for a relatively strong sellers' market) is likely to dwindle to 87% this year—and fall even lower in 1990.

Some of the monomer increases on the drawing boards are equally impressive. U.S. ethylene producers plan on a 27%-plus increase over the next few years. And similar advances are contemplated for both styrene and vinyl chloride monomer.

- **Prices:** The changing market balances implied by the above supply/demand projections suggest a fair amount of price relief. And this could be further aided by expectations of steady oil prices after the big runup of late 1988 and early 1989. Such steadiness should help put a lid on petrochemical feedstock costs—a major factor in the organic and plastic resin pricing equations.

Purchasing World projections call for a continuing deceleration in the rate of overall chemical price inflation. In fact, by early next year, the aggregate increase (relative to 1989 average) is only likely to be in the order of 2-2.5%.

But again some subsector variation is likely. Plastic resins, for example, may find it hard even to equal this rate of advance and could well edge a bit lower. On the other hand, specialty chemicals should outperform the market. Ditto, some of the big inorganic categories like chloralkalies.

To sum up—the halcyon days of the chemical industry with its big profits are gradually coming to an end. On the other hand, if demand, cost and price projections are anywhere near correct, earnings and margins should still remain at respectable levels.

That doesn't rule out increasing opportunities for savvy buyers. Clearly, the sellers' market is on the way out. Implication: A lot more wheeling and dealing in this historically competitive industry—with off-list pricing again becoming more the rule than the exception. ***PW***

PMs debunk inventory myth

Purchasing managers are playing a major role in debunking a long-standing economic myth—namely that in the mature stages of a business upturn inventories tend to rise to the point where they eventually become unwieldly.

The proof comes from latest Commerce Department statistics. Note from the chart that the purchased material stock/sales ratio (a measure of PM months' supply) is actually lower than it was one and two years ago. And the same is true of goods in process and finished goods—thus alleviating the need for any "inventory correction."

PMs queried in a new nationwide ***Purchasing World*** survey cite several reasons for this major change in inventory trends. For one, interest rates remain close to the double digit level—enough to push annual carrying costs up to the 24% and higher ranges.

Then there's availability. The few shortages which cropped up last year have all but disappeared as new supplies continue to come onstream. Upshot: There is now even less incentive than in 1988 to lay away any extra supply.

Last but not least, there's the increasing drift toward just-in-time and other sophisticated inventory techniques. The ***PW*** survey, for example, finds that nearly three out of every five respondents are moving toward implementation. And another 12% say they already have such a system in operation.

Another survey question also confirms the lack of any major concern about supplies. Less than one out of four, for example, say they are worried about leadtime stretchouts over the next few quarters. That's in sharp contrast to the nearly 50% who experienced at least a few leadtime extensions over the past half year or so.

The lack of concern about availability also shows up in the absence of hedging against possible work stoppages. Not one purchasing manager admits to this kind of hedging. Contrast that to previous ***PW*** surveys which found a substantial number of buyers factoring possible supplier strikes into their procurement strategies.

And this PM labor appraisal makes good sense. So far this year, for example, there has not been one major strike—despite all the hard bargaining in the steel, nonferrous metals, communications and construction industries.

There has also been a decline in hedging against future price increases—as fears of inflation gradually subside. Specifically, only 30% say they are still laying in a bit extra in anticipation of price advances (compared to a 1988 35% reading when a similar survey question was posed).

Equally significant, all of these respondents say such price hedging is spotty rather than across the board.

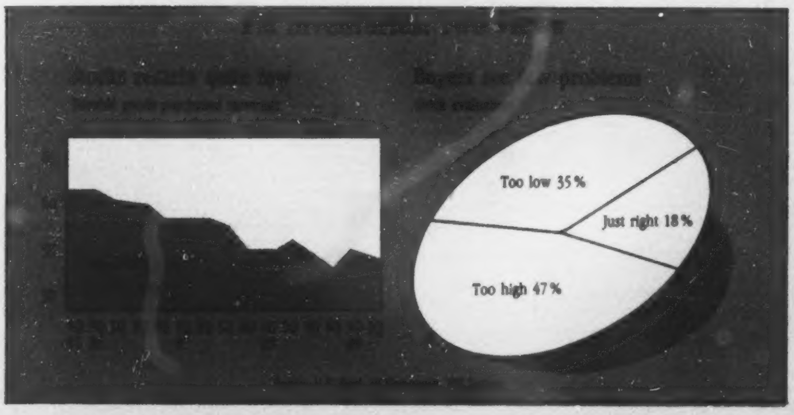
But perhaps the best indication of all that things are under control is the fact that buyers judge average inventory holdings to be pretty much in balance—with those rating stocks as a bit too high balanced out by those rating them as a bit too low.

And this is probably a very accurate appraisal—judging from the previously cited government report showing the key durable purchased material stock/sales ratio down at only 0.54—an all-time low despite the fact that the ratio traditionally jumps at this stage of the business cycle.

More important, chances are this crucial ratio will remain close to current low levels through the foreseeable future. True, 60% of the respondents feel some tonnage increases may be needed over the next six months. But all say the boosts will be quite modest and just about in line with the gains in production and sales that they see for the same period.

Several helping factors are cited in their drive to keep stocks "lean and mean." In addition to the aforementioned emphasis on JIT, respondents note such other inventory controls as 1) more use of blanket orders and long-term contracts, 2) improved final demand forecasting, 3) more computerization and EDI hookups, and 4) closer liaison with major vendors.

The PM view is summed up by one East Coast buyer who notes, "Keeping close tabs on inventories is more important than ever now that economic gains are becoming more 'iffy.' We have the tools to do it—hence our aim to keep stock/sales ratios at or near current low levels through 1989 and even into 1990." ***PW***



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SEPTEMBER 1989

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Columnist Louis DeRose discusses the influence purchasing people can wield in improving quality.

Coming next month...

PW exclusive—Survey of office equipment manufacturers detailing what the buyer needs to know about models, prices, and features of faxes, copiers, and typewriters.

Report on the annual National Office Machine Dealers Association show in New Orleans and the Computer Business Equipment Manufacturers Association report on prices.

Financial expert tells how to hedge your bets on commodity buying through options and futures strategies.

Exclusive report from Data Resources Inc. on commodity prices into 1991.

PW Predicts prices and trends on electronic components and energy supplies, and other markets.

DataTrak reports on trends in R & D spending and fleet car use along with the monthly look at steel and other commodity trends.

PurchasingWorld

PW POINTERS

Bellwether Software Corp.

We inadvertently omitted Bellwether, a purchasing software supplier, from our August listing. Their PMS-2 offers a full-function purchasing system for the IBM PC/XT, AT, PS/2 and compatibles. It includes four modules: purchasing, receiving, requisitioning and inventory. Additional modules can be added when the user is ready. An import/export utility allows transfer of data to and from any mainframe, mini, or micro software system. For more information, contact the company at *9900 Shelbyville Rd., Suite 6-B, Louisville, KY 40223* or **Circle 30**

Computer transportation newsletter

A monthly newsletter reporting on the use of computer technology in the transportation industry and international trade is available from *International Thomson Transport Press.* Every month, the newsletter will analyze how computer and information technologies are being applied by transportation companies, shippers and third-party services to control their cargo, keep track of equipment and speed the flow of international trade. The newsletter will be augmented by a weekly fax news service, which will reach subscribers every Monday with the latest developments in the industry. *International Thomson Transport Press, 424 West 33 St., New York, NY 10001* **Circle 298**

Whatever lights your night

According to lighting fixture manufacturers, the use of specular (mirrorlike) reflectors in fluorescent and other types of lighting fixtures is on the upswing and offers many advantages. Weirton Steel Corp. is helping the industry with a strong, smooth, shiny, special-finish steel to upgrade lighting efficiency. Specular reflectors utilize a silver film which is permanently laminated to a specialized substrate—such as Weirton's ultra-smooth black plate product. "New technology made possible the steel of superior quality we supply for these reflectors, and new technology is also helping cut lighting casts without sacrificing light levels. That's progress," says Harold Baker, Weirton's manager-market development, Tin Mill Products Sales. *Weirton Steel Corp., 400 Three Springs Dr., Weirton, WV 26062-4989.*

Airing it out

Contract Freighters, Inc. has created a transportation service—called AirOne—designed for air freight customers. According to Glenn Brown, president of the Joplin, MO-based international motor carrier, CFI is the first truckload carrier in the nation to make a commitment to the pickup and delivery of air freight. CFI has been transporting cargo regularly for the past several years for most of the large air freight companies such as Federal Express, Airborne and Burlington Air. AirOne is an expansion of this service providing coverage to shippers and consignees in all 48 states, Canada and Mexico. The company has a fleet of 2,300 air-ride trailers and 1,000 late-model trucks offering through-trailer service in and out of Mexico and has direct authority to most of the Canadian provinces. *CFI, 2900 Davis Blvd., Joplin, MO 64804*

Fire safety seminars

Free training seminars for fire protection and safety engineers in their employee training programs can be custom designed to meet specific time constraints—from 1½-2 hours is recommended.

Drawing on more than 80 years' experience, Justrite Manufacturing Co. personnel will describe the basic characteristics of flammables and combustible liquids, define important terms and demonstrate how dangerous properties can be controlled. Seminars include audio-visuals, fire demonstrations and lectures. *Justrite Mfg. Co., 2454 Dempster St., Des Plaines, IL 60016* **Circle 299**

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by Robert S. Reichard, executive editor

Kicking into neutral

More good news on the pricing front: The big push of late 1988-early 1989 is just about over. The evidence is pretty conclusive: most key industrial inflation yardsticks are now shifting into neutral—with even a few declines thrown in for good measure.

Preliminary estimates, for example, suggest that industrial producer price averages over the current 3-month period will show at most only a fractional advance—a far cry from the near 8-10% rate of increase noted over the first two quarters of 1989. To be sure, the earlier increases reflected a big jump in oil (an area now in falling trend). But even if you remove the distorting influence of energy, there seems to have been a notable deceleration in the rate of overall rise.

The improvement has been most noticeable in the raw and semifabricated areas—with the major impetus here coming from improving supplies (as measured by falling operating rates). Factory utilization in the primary processing industries has fallen to near the 85% mark—about three and a half percentage points under the 88.4% January high.

Moreover, a broad range of products has been affected by this supply/demand shift—including many chemicals, plastic resins, paper products, steel and construction materials. More important—if all this continues, it could well portend fewer and smaller price hikes in the finished goods sector.

The NAPM Purchasing Price Index also backs up the feeling of an improving inflation picture. The latest reading of that group's seasonally adjusted index dropped to 46.9 (where 50 equals no change). That's the lowest level in well over three years—with even the economic bellwether corrugated shipping containers heading lower after many years of increasing prices.

Import quotes are also contributing to the current price lull—aided in large part by a slowly strengthening dollar—something which, other things being equal, tends to lower landed costs. In any case, the latest reading of Uncle Sam's import price index shows averages (ex fuels) heading down for the first time in more than a year.

Actually, there's a double-barreled effect here. Not only does a decline in this index spell relief for the products imported, but it should make domestic producers a lot more cautious in posting increases on their own lines that compete with imports.

Still another favorable sign: The absence of any labor cost acceleration. Average hourly earnings in the nonfarm economy have been relatively flat in recent months—compared to about a 2.5% annual rate of advance in the first quarter and the even bigger 3% jump noted for all of last year.

Zero in on manufacturing, and the picture is even rosier. A new study of factory unit labor costs (see this issue's Datatrak section) shows that last year these costs rose only 3.5%. But since productivity jumped 3.2%, the annual unit advance came to only a minuscule 0.3%. And early 1989 suggests a continuation of this trend.

In short, the two basic determinants of price—labor costs and supply and demand balance—now seem to be under control. The latter is also helping to make for a modest buyers' market in some sectors—as witnessed by the fact that an increasing number of PMs are now able to delay or water down announced vendor price increases. It's a lot different from six months ago when most hikes were going through unchallenged.

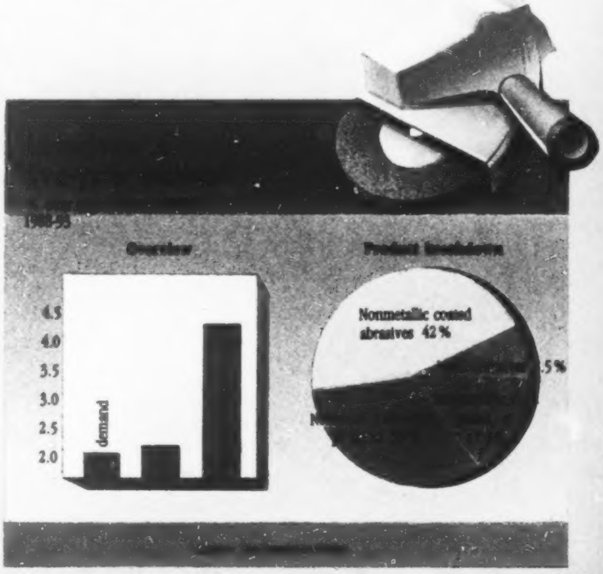
Given all the above, it's not surprising that most price forecasts are being revised downward. An informal *PurchasingWorld* survey of top economists, for example, finds that they've knocked nearly one percentage point off their earlier projections.

The current consensus for annual rates of increase over the second half of the year: GNP price deflator (4.5%), industrial producer prices (1.5%) and cost of living (4.0%).

Abrasive industry catches up

The $3.1 billion abrasive industry has recovered from its difficulties of the late 1970s and early 1980s—and is once again keeping pace with general economic growth.

More important, a new study by the Cleveland-based Freedonia Group sees this growth continuing—with total sales reaching $3.9 billion by 1993 (the equivalent of a 4.3% annual rate of advance).



Also on an upbeat note—improving demand is not expected to put all that much upward pressure on prices. Indeed, Freedonia analysts, citing strong competition, see price increases averaging out at 2.2% a year—actually a bit under the likely overall inflation rate.

Part of the demand optimism stems from a still-reviving U.S. manufacturing sector. Moreover, advances in product design are expected to spur buying as producers of new equipment seek higher quality and efficiency. Expected improvement in the U.S. abrasives trade will also help domestic producers.

The fastest growth is expected in the billion dollar nonmetallic abrasive product category which consists mostly of bonded abrasives, where annual dollar increases of 5.5% a year are seen through 1993. Strength here is based on the expected acceptance of improved, application-specific products in the cutting and grinding of glass, ceramics and plastics as well as in metalworking.

Meantime, the even bigger (40% of market) nonmetallic coated abrasive sector should experience average current dollar growth of 4.4% a year. But both nonmetallicized grain as well as metal abrasive dollar shipments will expand only 2.4% and 3.0% respectively—with both of these segments held back by competition with other abrasives and increased efficiencies in abrasive use.

Viewed from an end-market-use perspective, service areas will be the fastest growing—with the manufacturing sector (80% of the total market) showing only average growth. Slower, though still positive growth (in real terms) is also likely for construction and other markets—as public works and consumer spending register gains.

Polyethylene prices erode

Price erosion is still the order of the day. Latest reports put LDPE (linear grade) down in the 38-40¢/lb. range—off 4-6¢/lb. from late spring and 12-14¢/lb. from the 52¢/lb. quote of early 1989. And export tags as low as 27¢/lb. have been reported. HDPE prices are also said to be weakening. Behind the slippage: a slackening off in demand (little or no change is seen for the year) at a time when big capacity gains are projected (6% for LDPE and 8% for HDPE). And even bigger double-digit capacity additions are on the boards for 1990.

Aluminum stocks inch up

Ingot is taking on a weaker tone, with market prices in recent weeks quoted in the low 80s range—well under this year's $1.13/lb. high. In part, this can be attributed to all-out production—especially here in the U.S. where year-to-date totals are running about 4.5% ahead of last year. One result: inventories are beginning to inch up—though they are still well under the normal 2-month supply. Further assume only small increases in consumption over the next few quarters—and prices could drop into the 65-75¢/lb. range by next summer.

Import tags looking better

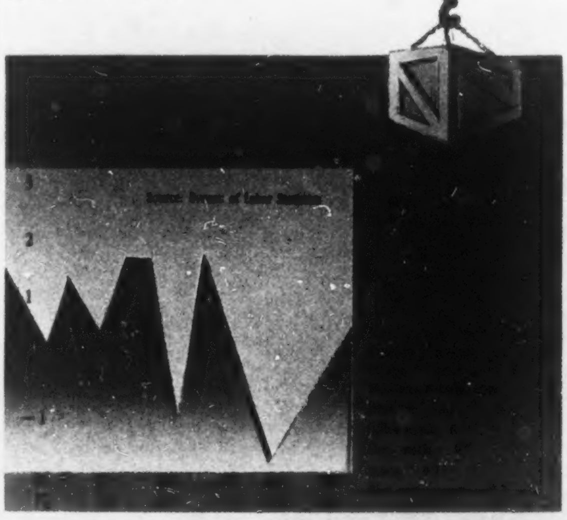
Import tags are beginning to look a little more attractive again.

True, they haven't returned to the low levels of a few years back. But over the past quarter, for the first time in more than a year, they edged a bit lower—thereby leaving average tags (ex fuel) only 1.5% above 12 months earlier.

Some of this, of course, can be attributed to the recent dollar strengthening—something which, other things being equal, makes incoming shipments lower in price. But another factor could be the generally more competitive position recently noted in many key global commodities.

A more detailed rundown of key subsectors of imports for the latest available quarter follows immediately below.

- **Crude materials:** The last quarter marked only the third time in nearly four years that this category fell (the actual decline: 1.4%). Behind the drop: slippage in both crude rubber and textile fabrics.
- **Fuels:** A surge in crude oil made for an 18% jump. But subsequent declines in this area suggest the current (3Q) results here will be negative.
- **Chemicals:** Prices (off 2.7%) fell for the first time in two years. Reductions were noted for both organics (down 3.1%) and inorganics (down 7.0%). Fertilizers were also somewhat lower.
- **Intermediate manufactured goods:** The first decline in four years (down 0.7%) is attributable to a big 7.9% fall in nonferrous metals—offsetting stable to slightly higher quotes in other products. Nonferrous items heading lower included nickel, zinc, copper, aluminum and precious metals.
- **Machinery and transport equipment:** Averages here were off 0.6%. Substantial dips were posted in scientific apparatus (3.0%), specialized machinery (2.3%), and metalworking machinery (2.2%). Autos were also down—by a small 0.9%.



Source: Bureau of Labor Statistics

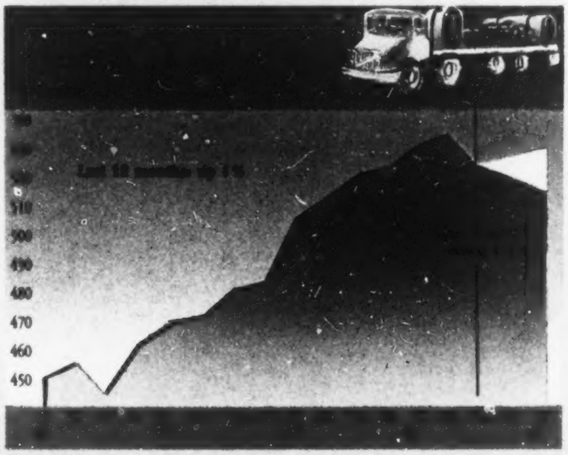
Steel markets soften

CURRENT SITUATION: Markets continue to soften. Signs of the times: 1) recent announcement of an additional $20/ton discount on MR and CR sheet and hot-dipped galvanized sheet, 2) a decline in alloying metals which is bringing prices of specialty steel down and 3) the more aggressive foreign wooing of U.S. customers with discounts. The latter suggests that the new 2.5-year extension of the Voluntary Restraint Agreements (VRAs) won't have too much near-term impact on prices—**as a growing supply glut becomes the major price determinant.**

DEMAND: The current lull is expected to persist. Fourth quarter shipments, for example, could fall to under 19 million tons—**leaving the year's total at only about 81.5 million**—down significantly from last year's 84-million-ton level. Behind the slippage: Weakness in the auto and construction sectors—plus some inventory correction (about a 1.5-million-ton paring is expected in the second half *versus* the more than .5-million-ton first half accumulation).

SUPPLY: A declining steel operating rate tells the story. American Iron & Steel Institute figures, for example, have been hovering only around the 80 mark this quarter—in marked contrast to the near-90 reading at the beginning of the year. Part of the decline, of course, can be traced back to reduced buying. But another factor could be some modest increments in steel-making potential—to about 115.5 million tons this year (up slightly more than three million tons from 1988).

PRICE OUTLOOK: Market forces point to further slippage—though the reduction in flat-rolled galvanized quotes may have been overdone. In any event, the composite price of the metal (based on Wharton Econometric estimates) may fall to as low as $589/ton by early 1990—**off some 5.5% from the recent second quarter 1989 peak. After that, look for a slow bottoming out. But even in 1991, Wharton sees the composite price at only $526/ton—still under recent peaks.**



Lumber supplies reduced

A reduced timber supply from U.S. forests has pushed West Coast prices up sharply. Early summer levels, for example, are up by these amounts from late 1988: Sanded plywood AD ¾ (20%), plywood sheathing ½ CD interior (12%) and 2x4s (24%). And more advances are seen, with increases over the next year for all of these grades put at 21%, 6% and 5%, respectively. Average West Coast chip tags are also up this year—by about $35/bone dry unit.

Copper levels off

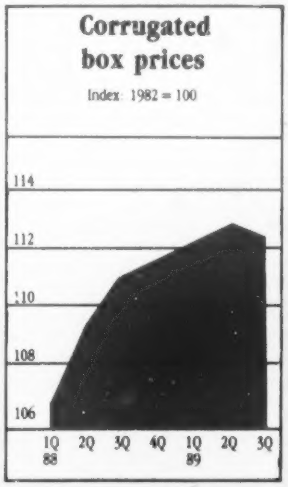
The red metal has recently rallied due to labor problems abroad, but the overall supply prognosis is good. —thanks to increasing production—especially in the U.S. and Chile. All in all, global output should be up about 3.5% this year—well above the 1% or so gain seen for consumption. As such, some further weakness can't be ruled out—with prices possibly flirting with the $1/lb. barrier by year end or early 1990. Even so, that would still leave room for profit—for costs continue to hover around the 55-60¢/lb. mark.

Computers

Workstations with several times the processing power of today's entry level $10,000 machines could hit the market within two years. Probable price: in the $5,000 range. Aim of producers is to compete with high-performance personal computers. Moving on to more powerful machines, a price war has broken out in mainframes—with both IBM and Amdahl slugging it out for a slow growing market. Upshot: discounts of up to 35% are being reported.

Packaging prices pressured down

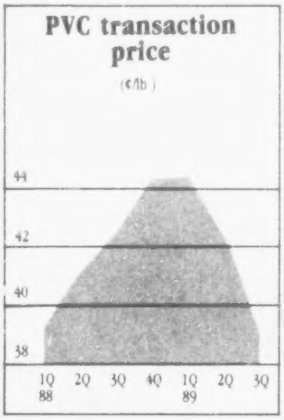
An improving supply/demand situation is beginning to put downward pressure on prices. This is especially true in the plastics area where softening resin tags are forcing reductions in films, molded components, laminated stocks and plastic bags. On the paper front, corrugated and kraft bags have both begun to ease a bit—though folding cartons are somewhat higher. Glass containers, meantime, remain unchanged. Ditto, metal cans (despite recent press reports of rising quotes).


Corrugated box prices

Index: 1982 = 100

Polyvinyl chloride stays soft

Persisting softness has knocked another cent off transaction quotes, with pipe grade resin now going for only 39-40¢/lb. And all signs point to more declines this fall as the construction market remains basically weak. Some sales to non-construction markets have also tapered off—with only exports remaining relatively strong. All in all, shipments are likely to advance by only about 2% this year—at a time when new potential could be up by more than 8%. Result: operating rates will fall five percentage points this year—to the 86% mark.

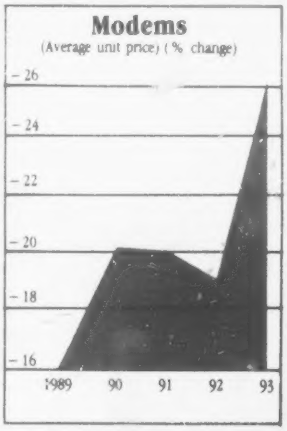


Zinc on the rise

Currently relatively strong demand from steelmakers (both continuous galvanizers and hot dippers have been in the market for the metal in recent weeks) has made for a 2¢/lb. increase. But that should be it for a while as producer metal remains relatively plentiful. Then, too, consumption could be in for a breather. Specifically, with Detroit planning on possible production cutbacks this fall, the plating metal may face some additional downward pressure. There's little chance for any major run-up—one that would bring tags back up to the 95¢/lb. peak of earlier this year.

Modem quotes still down

Prices are still heading south. This year's average quote, for example, is likely to be only around $443—down 16% from last year. And the trend is expected to spill over into 1990. A new Dataquest estimate for that year calls for a close-to-20% additional decline (enough to bring the average unit price down to $355). And for 1991, projections call for a further decline to around $286—off another 20% or so.



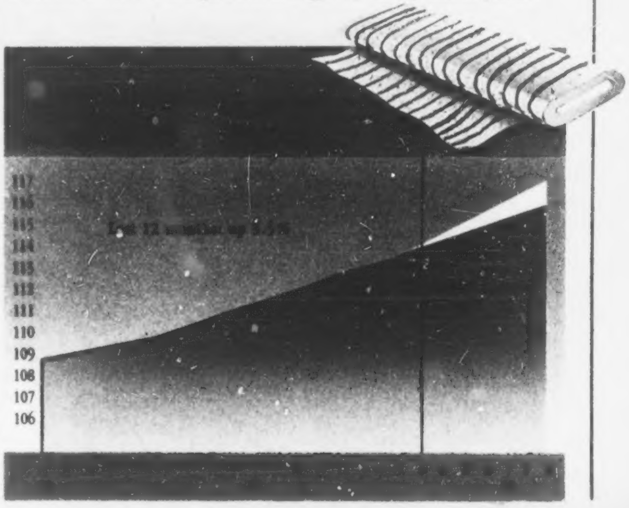
Raw materials push textiles up

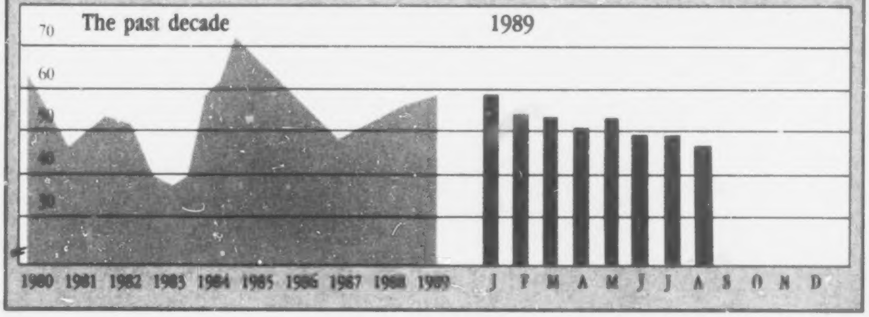
CURRENT SITUATION: Prices are slowly edging up. Blame it on a combination of factors—the most important of which are rising raw material costs. On the fiber front, for example, both cotton and polyester quotes have taken off. Nor has polyester been the only manmade fiber to advance. Add in increases in acrylics, rayon and nylon—and it's easy to see why the overall synthetic fiber price average is now running upwards of 10% above year-earlier levels.

DEMAND: Current year-to-date production trends suggest about a 4% increase in mill output this year. Another positive sign: shipments of polyester staple are running at a 3% rate of advance over the same period. This can hardly be called a boom. But it's certainly a lot more robust than last year's fractional 0.4% output gain. Part of this can be traced to stepped-up consumer apparel purchases—as a drop-off in big-ticket durable spending leaves people with more cash for clothing purchases.

SUPPLY: Some snugness is suggested by current close-to-capacity operating rates—92-93% for textile mill products overall and about 95% for especially tight manmade fibers. Some slowdown in Chinese shipments is also reported—but this is likely to prove temporary. And on the manmade fiber front, polyester should remain tight into next year—as Eastman Chemical closes down its 240 million-lb. (nearly 10% of U.S. capacity) South Carolina plant.

PRICE OUTLOOK: The drift upward will continue— as fabric makers (aided by good demand) press for pass-throughs of recent fiber increases. And this should be a continuing process if, as expected, cotton and polyester move still higher over the coming months. Foreign mills—also faced with higher material costs—want higher prices, too, and this should make domestic boosts easier to post. **Best bet: about a 2-3% increase in overall textile mill product tags by early next year.**





N.A.P.M. business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)

KEY ECONOMIC TRENDS

The slowdown takes shape

Slowdown—yes, recession—no. That seems to be the scenario shaping up for the next few quarters.

True, there are a few Nervous Nellies who see an actual downturn just around the corner. And to back this up, they point to drops in such key economic yardsticks as the NAPM Business Barometer (see chart).

But such gloom and doom projections are hardly justifiable. More to the point: there are still some fairly strong positive factors around that should be cushioning the economy through the remainder of 1989—and into early 1990 as well.

For one, exports remain quite robust. The latest NAPM survey in this sector, for example, shows 72.9% of respondents now exporting—actually up from the previous month. Equally significant, PMs reporting gains in exports outnumber those reporting declines by a better-than-two-to-one margin.

Inventories also remain in good shape—thus assuring that any orders that do come in will be quickly translated into new production. In any case, the stock/sales ratio for all manufactured goods is currently well under the average of last year (see chart)—in marked contrast to the inventory increases that normally occur during the mature stages of a business upturn.

The capital goods sector also remains quite robust. Machine tool orders are down from last year's highs (see chart), but by and large, they're still well above the lows of a few years back.

Confirmation of a relatively good outlook here also comes from the Commerce Department's series on nondefense capital goods orders. Totals at latest report were actually running 5% ahead of a year ago—a pretty good sign that this area is still buoyant.

The consumer also isn't about to pull completely out of the market. That's not to say that auto sales have been all that great. On the other hand, total spending (sparked by soft goods purchases) continue to inch ahead.

More important, John and Jane Q. Publics' confidence recently hit a 20-year high according to a new Conference Board survey. The New York-based research firm says this yardstick of future spending rose 3% over the latest available month—adding that a combination of low unemployment, falling interest rates and very modest price rises are all contributing to the consumer's basically upbeat mood.

Another particularly encouraging finding of the survey: an expected increase in the number of respondents planning new car purchases. Big-ticket appliance buys are also expected to rise. Ditto, the purchase of new homes.

On the latter score, F.W. Dodge (compiler of construction statistics) feels that prospects for the second half being better than the first half are good. Following up on this, George A. Christie, Dodge's vice president and chief economist, observes that 1) falling mortgage rates should help and 2) sales of new homes have picked up since early spring.

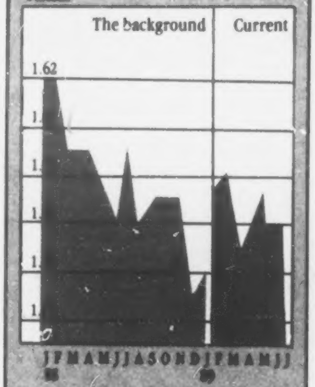
Finally, as noted above, the unemployment figure isn't all that bad. And while help wanted advertisements

Continued...

Leading indicators

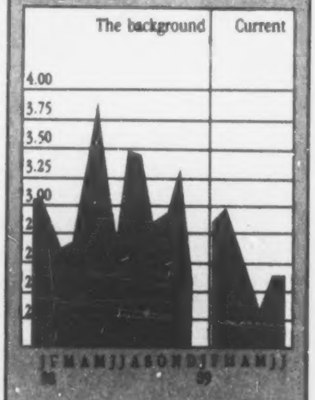
Inventory/sales ratio (all mfg.)

Percent



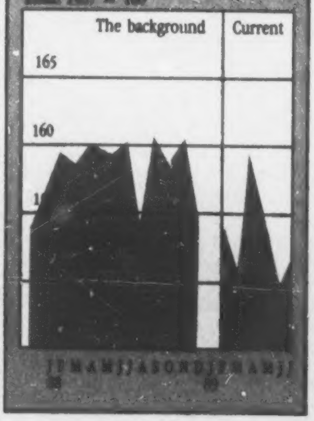
Machine tool orders

Millions of dollars



Help-wanted index

Index: 1967 = 100



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are off somewhat, (last chart) there's little indication that jobless totals are about to take off.

Put all the above into the hopper—and it's easy to see why most economists and econometric forecasting models are still predicting gains (albeit small ones) for the next few quarters. Wharton, for example, sees real GNP advancing at a 2-2.5% rate into early next year—pretty much a repeat of recent spring levels.

Sure, it's no boom. But by the same token, it's not all that bad for an economy that will be entering its eighth straight year of upturn at year end.

CURRENT PRICES

Can the IPI be true?

It's almost too good to be true, but Uncle Sam's comprehensive industrial price index has been declining for two straight months now.

To be sure, the fall has been minuscule—0.1% each month. On the other hand, that still adds up to a better-than-1% annual rate of decline. More important, it's welcome relief after the big advances of late winter and early spring.

In a sense, this latest reading is even more encouraging than that of last month when most of the downward pressure came from energy. This time around, for example, while energy did fall a bit, the overall decline was spread out—with individual subsectors shaping up along these lines:

- **Energy:** still edging down were gasoline, residual fuels, jet fuels and liquid petroleum gas. But these slippages were modest and partially offset by increases in natural gas, home heating oil, diesel fuel and coal—with the latter due to recent work stoppages.
- **Nondurable materials:** heading lower were organic chemicals, industrial gases, plastic resins, fertilizers, paper and paperboard. These more than offset advances in textile fibers, textile fabrics and paper office supplies.
- **Durable materials:** copper, aluminum, steel and several metal scrap items were off. True, lead and zinc moved up—but not enough to prevent an overall 0.6% decline in this key industrial procurement area.
- **Components:** A mixed picture here. Electronic components were off 0.2%. But bearings and fasteners held unchanged after earlier gains. At the other end of the spectrum, motors and generators moved higher.
- **Capital equipment:** No overall change here after recent spring advances. Cars were off, reflecting earlier than normal discounting of 1989-model cars. Trucks were down, too. But small increases were recorded in such sectors as material handling equipment, office equipment and transformers and power regulators.

Where do we go from here? Best bet: a continuing of the current trend—with preliminary estimates for September pointing toward more price moderation on a combination of increasing supplies and slowly decelerating economic gains.

U.S. industry forges ahead

There's mixed news on the international competition front—though on balance things are beginning to look up for American industry.

The one problem is that while U.S. factory productivity managed to rack up a solid 3.2% gain last year, it was more than matched by many of our industrial trading partners (see first section of the accompanying chart).

On a rosier note, however, is the fact that small U.S. manufacturing labor cost increases (3.5%) held our unit labor costs relatively unchanged. That's in sharp contrast to the big unit labor cost runups in most other countries—runups sparked by both large labor cost advances and the deterioration of the U.S. dollar (see second section of chart).

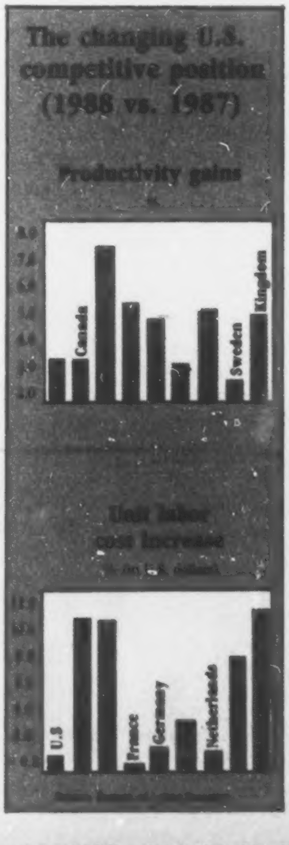
Looking first at productivity: as good as the U.S. gain was, it was dwarfed by advances of Japan (7.6%), France (5.3%), United Kingdom (4.9%) and Germany (4.6%). Canada, our biggest trading partner, however, reported the same 3.2% gain as the U.S.

As for hourly wage costs—the 3.5% increase in the U.S. last year was small compared to those reported by most of our overseas competitors. The United Kingdom increase here was an eye-opening 8%—with much-bigger-than-U.S. boosts also reported for Sweden (6.7%), Italy (6.4%), Canada (6.2%) and Japan (5.4%).

Add in dollar deterioration, and it's easy to see why overseas unit labor costs in these nations (calibrated in dollar terms) rose much faster than they did here—despite the higher efficiency gains noted for these countries.

Unit labor cost increases of 12% and 11%, for example, were reported in the United Kingdom and Canada, respectively. And a huge (near 13%) rise in the value of the Japanese yen in 1988 more than offset a big Japanese productivity gain—resulting in an almost-as-big 10.5% jump in Nipponese unit labor costs.

Combine all these changes, and the U.S. unit labor cost relative to the trade-weighted average of 11 other countries dropped by nearly 8% last year. And this could well be one of the reasons why our balance of trade has begun to improve.



PROCUREMENT STATUS REPORT

The sellers' market fades

It's a brand new ball game as the strong sellers' market of the past few years gradually begins to fade.

The obvious sign, of course, is the percent flattening out in the inflation curve. But equally important are the growing number of indicators signalling that most products are now a lot easier to come by.

Some of this could be due to the traditional summer order slowdown. But this time around the easing looks to be more than seasonal.

A case in point: The NAPM's delivery performance index, after adjusting for seasonal distortions, dropped for the third consecutive month. In any case, it's now more than three percentage points under the neutral 50 mark. Implication: the number of products being delivered at a faster pace now exceeds those where some slowdown is still being noted.

PurchasingWorld's exclusive leadtime index tells much the same story. The latest reading (48, where 50 is again deemed to be neutral) suggests that more items are coming in than are stretching out. Incidentally, this has been pretty much the pattern now since late spring.

Other signs indicative of an easing market:

● Only eight items are now on NAPM's short supply list. That's two fewer

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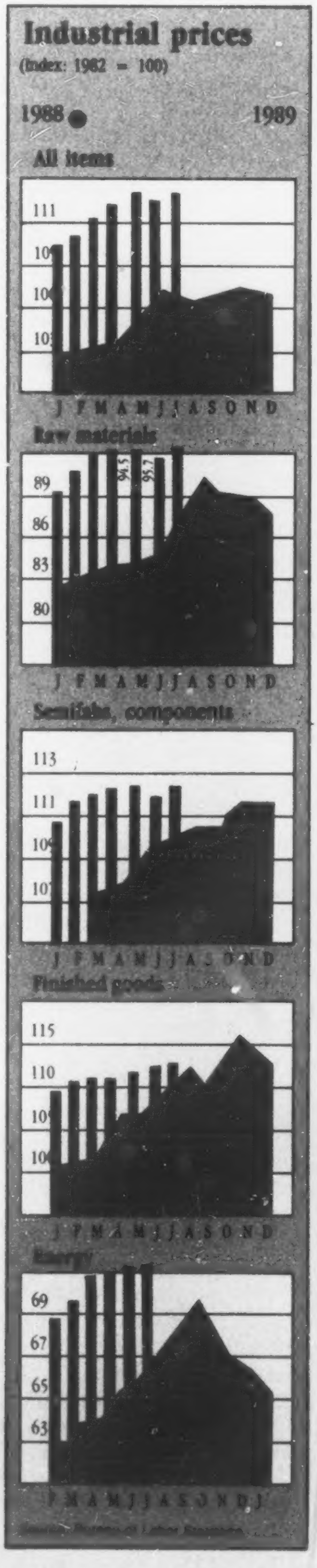


Source: Bureau of Labor Statistics

Selling the fleet

Looking for yardsticks for disposal of used fleet cars? Here's what the latest National Association of Fleet Administrators (NAFA) survey of 235 U.S. fleets suggests:

● **age and mileage:** The typical U.S. car is held for 39.2 months (about 3.25 years)—with an average odometer reading of 63,163 miles. Minivans are kept 40.5 months and light-duty trucks 60.2 months.

● **time of sale:** Some 15% of queried fleets sell the majority of their vehicles in May. This is closely followed by October and April—with 14% and 13% of fleets saying those are their busiest sales months.

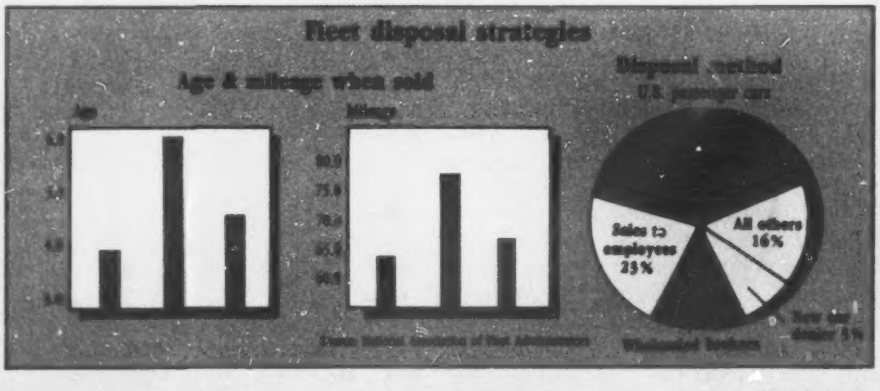
● **method of disposal:** Auctions are by far the most popular way—accounting for about 42% of the cars sold. Other approaches (in descending order of use): sales to employees (23%), wholesale and brokers (14%), trade-in to new car dealers (5%).

● **recovery price:** The average fleet recaptures anywhere from 35-40% of its original purchase price.

● **reconditioning before sale:** This is not very prevalent—with one third of all U.S. fleets saying they never recondition—and another 35% admitting to "rare" reconditioning.

The new study also finds that when a U.S. driver's employment is terminated, nine out of 10 times his or her "extra" vehicle will be reassigned to another employee rather than sold. And in another finding, ownership (64% of fleet cars) rather than leasing (36%) remains the preferred procurement approach.

As for changes in strategy—about half of those queried contemplate some shifts. Specifically, 28% plan to use another make or model in order to enhance resale value.

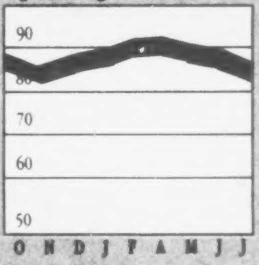


Source: National Association of Fleet Administrators

Continued...

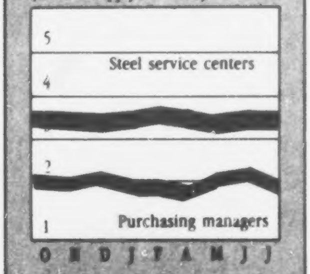
Steel

Operating rates



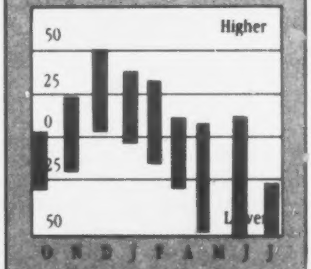
Inventories

(Months supply on hand)

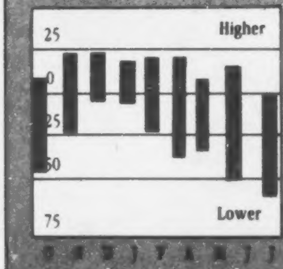


Demand (steel service centers)

(Percent of respondents)



Demand (steel buyers)



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

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than noted a month earlier—and less than half the number on the list when the year began.

- Factory operating rates are falling. The average utilization rate has dropped more than a full percentage point from the earlier-in-the-year 85% peak. More important, a growing number of industries are now operating at under so-called "preferred" levels.
- Inventories continue to shrink—as buyers become increasingly aware that they can now get what they want, when they want it. Not surprising, the NAPM reports inventories in decline now for seven straight months.

As one purchasing executive sums it up: "It may not be a full-fledged buyers' market, but things sure have changed. And given the supply/demand projections I've seen, the new easier climate should persist through year end—and maybe even into 1990."

STEEL SCENE

The inevitable cooling

Latest buyer and distributor surveys confirm that steel markets are continuing to weaken. Among other things, these reports suggest:

- reduced fall shipments
- dwindling supply problems
- modest price reductions.

On the demand front, for example, roughly two out of every three buyers queried by the NAPM Steel Committee expect to take in less metal over the next three months. More startling: not one single respondent expects to add tonnage, the first time this has happened in years.

Distributors responding to the latest Steel Service Center Institute (SSCI) survey aren't all that much more optimistic. The 49% who anticipate a drop in incoming orders over the next three months is more than twice the 21% who see some improvement over the same time period.

This, in turn, has prompted some caution on the part of Andrew G. Sharkey, SSCI president. He sees his group's shipments dropping 3% for the year as a whole after holding close to year-earlier levels over the first half of 1989.

As he puts it, "The strong upward thrust in metalworking markets has cooled. That cooling, however, should not be cause for undue concern. It was inevitable that it would end at some point."

On the other hand, Sharkey anticipates no free fall: the relatively weak dollar and the low cost of money will have a number of positive effects into 1990. Exports will continue to be up and imports down for machinery and equipment makers. And we anticipate that lower interest rates will help construction and the financing of consumer durable goods.

Coming back to availability—most buyers don't seem overly worried about tightness over the next six months. Only three items get scattered mention: coated sheet, cold-rolled sheet and bars. More important, 84% of those queried see no problems at all—a far cry from early last year when nine out of ten admitted to worries about at least one product.

Operating rates would certainly seem to back up buyers' optimism on this score. The current rate is put at only slightly above 80%—well under the near-90% levels prevailing as recently as this past January.

Improved availability may also be behind a trend toward lower inventories. Some 42% of queried buyers say their stocks are too high relative to demand—with not one single respondent dubbing them "too low."

Service centers seem of the same mind. The readings here: 72% "too high" *versus* only 4% "too low."

Not surprising, this shift in market balance is expected to put some downward pressure on prices. In fact, more than half of service center respondents expect declines over the next six months—far outweighing the minuscule 6% who see some increases ahead.

More important, the number expecting such weakness has been growing—from just 5% in March, to 26% in June, to *54* at latest count. And 6% now say the declines by early next year could be in excess of 5%.

Imports may also be ready to put some downward pressure on quotes. Thus 4% of buyers say

Continued . . .

Import prices

(compared to domestic)

Steel buyers

ABOVE 46%
SAME 23%
SLIGHTLY BELOW 27%
SUBSTANTIALLY BELOW 4%

SERVICE CENTERS (carbon)

ABOVE 4%
SAME 76%
5-10% BELOW 20%
10-20% BELOW 0%
OVER 20% BELOW 0%

...continued

foreign mills are offering prices substantially below domestic levels. That's the first time this has happened in nearly a year, and some 20% of the service centers say they can get foreign steel 6-10% under domestic levels—double the number noted just two months earlier.

Also indicative of more overseas competition: both buyers and distributors report foreign mills are becoming increasingly active in seeking new U.S. business.

This month's breakdown

Index: 1982 = 100

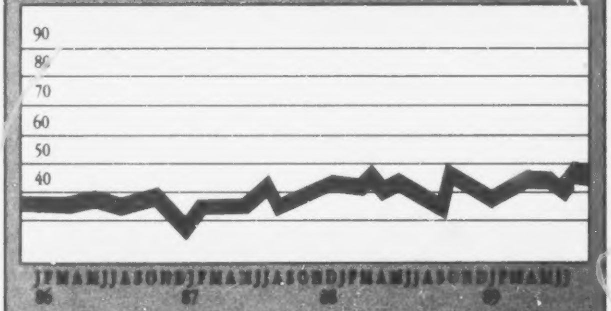
	Latest level (July)	% change from: Month ago	Year ago
Bearings	124.5	0	9.1
Bolts, nuts, etc.	111.9	0	5.0
Chemicals, inorganic	108.2	0.2	6.9
Chemicals, organic	115.8	−1.5	4.8
Concrete products	111.2	0	1.0
Corrugated cartons	112.6	−0.2	1.3
Cutting tools, small	110.8	0.7	3.6
Electric lamps (bulbs)	124.8	0.6	1.7
Electronic components	119.4	−0.2	1.4
Fans and blowers	117.8	0.2	4.2
Foundry and forge products	114.9	0.3	4.5
Fuel oil (residual)	49.4	−3.5	22.3
Furniture, commercial	129.1	0.3	3.3
Gasoline	70.8	−5.3	16.3
Glass, flat	110.3	0	0.6
Glass containers	116.4	0	3.7
Gypsum products	112.5	3.1	3.6
Hand tools	128.1	0.4	6.4
Hand tools, power driven	117.1	0.9	4.9
Industrial furnaces	125.1	0.8	3.6
Integrating and measuring instruments	120.4	1.5	5.0
Internal combustion engines	114.9	1.2	3.3
Lubricating oil	111.0	−0.3	2.4
Lumber millwork	127.9	−0.2	4.5
Material handling equipment	112.1	0.2	4.3
Metal containers	111.0	0.3	0.8
Metal mill shapes (nonferrous)	136.3	0.5	4.0
Metal tanks	111.4	0.2	5.6
Motors and generators	129.7	0.4	6.7
Motor trucks	125.2	−2.6	1.5
Office and store equipment	109.8	0.5	2.1
Paperboard	140.2	−0.8	4.4
Paper boxes and shipping containers	130.3	0	4.7
Paper office supplies	122.7	0.7	6.0
Paint	120.3	0.9	6.4
Plastic resins	137.2	−1.2	1.8
Precision measuring tools	125.3	0	3.2
Pumps and compressors	115.4	0.3	5.7
Refractories	120.0	0.1	5.4
Rubber belts and belting	113.7	1.2	7.3
Scales and balances	106.4	0.1	0.8
Steel products	114.7	−0.1	3.2
Switchgear	119.3	0	5.4
Textiles, synthetic fibers	107.1	0.9	9.7
Textiles, gray fabrics	115.5	0.9	0.5
Tires and tubes	97.2	−0.8	3.1
Transformers and power regulators	118.1	0.3	8.5
Welding equipment	122.5	0.2	3.8
Wire and cable	140.5	−2.0	11.2

NAPM procurement trends

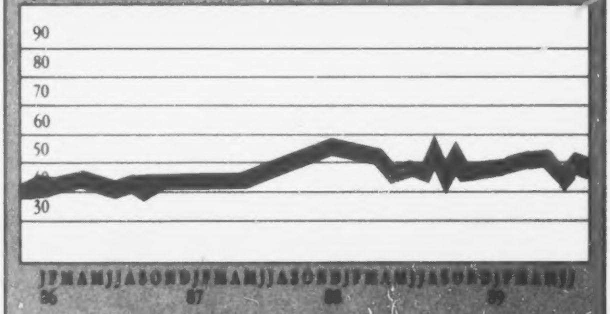
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level, to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory, prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

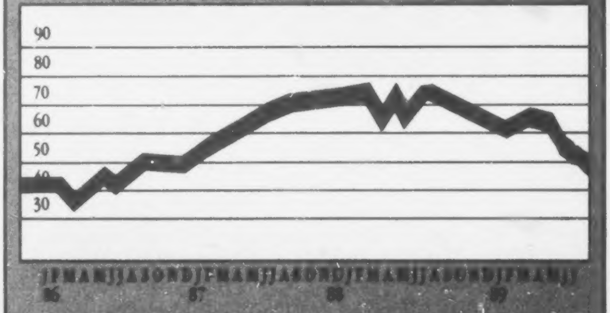
Inventories



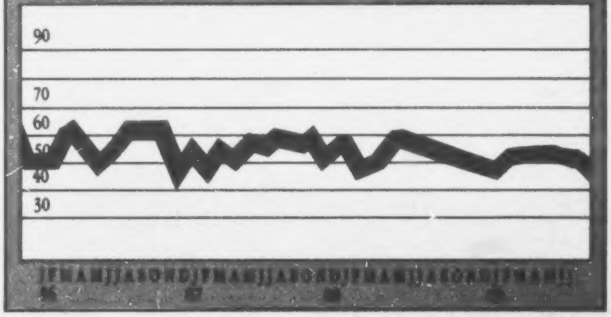
Speed of delivery

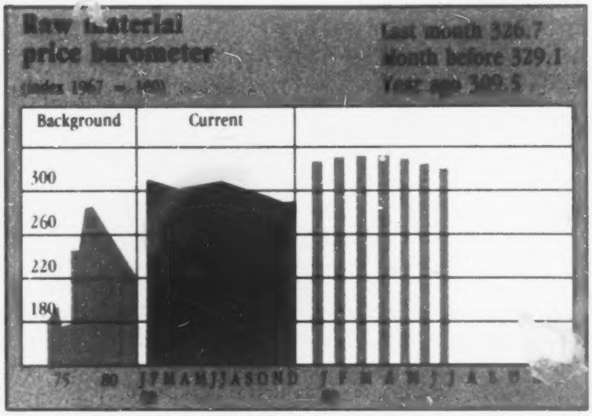


Prices



New orders





Latest spot market prices

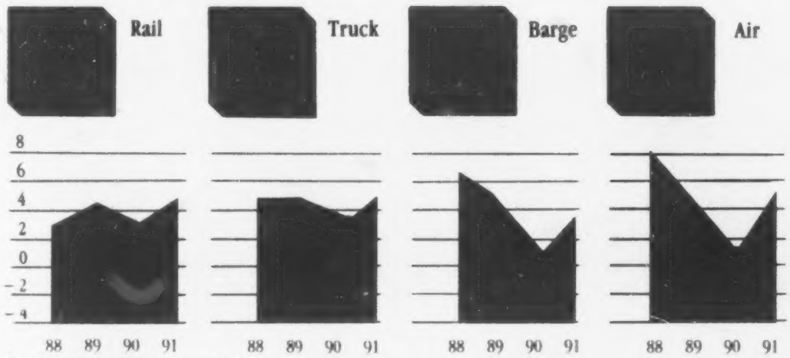
	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	18.70	18.70	16.50
Steel, bars, Pitts., cwt.	18.70	18.70	16.50
Steel, bars, C.R., Pitts., cwt.	25.20	25.20	19.45
Steel, plates, Pitts., cwt.	23.25	23.25	22.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	22.75
Steel, sheets, C.R., Detroit, cwt.	29.65	29.65	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.82	.84	1.21
Antimony, N.Y., dealer, lb.	.95	.98	.99
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	1.81	1.70	1.60
Brass, yellow, [sheet], lb.	1.77	1.66	1.55
Cadmium, N.Y., dealer, lb.	4.60	6.10	7.80
Copper, electrolytic, wire bars, refd., lb.	1.18	1.07	.96
Copper sheet, over 24 in., lb.	1.90	1.79	1.68
Lead, common, N.Y., lb.	.42	.39	.36
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.58
Mercury, 20 fl. lots, N.Y., fl.	270.00	290.00	370.00
Molybdenum, oxide, dealer, lb.	3.32	3.48	3.37
Nickel, cathode, dealer, lb.	5.85	5.45	6.60
Platinum, dealer, oz.	494.00	508.00	534.00
Silver, N.Y., oz.	5.20	5.36	6.68
Tin, N.Y., dealer, lb.	4.38	4.62	3.37
Zinc, Prime West, East St. Louis, lb.	.82	.80	.66
Zinc, die casting alloy, No. 3, lb.	.920	.880	.735
PAPER			
Uncoated book #3 offset, ton	1020.00	1020.00	920.00
Watermarked bond, ton	1090.00	1095.00	1070.00
Gummed sealing tape, carton	18.75	18.68	17.76
Grocery sacks, ton	495.00	495.00	455.00
Solid bleached paperboard, ton	780.00	780.00	685.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	410.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.284	.286	.281
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.22	1.22	1.20
Cotton middling, 1", N.Y., lb.	.703	.648	.604
Printcloth, 48", 80x80, N.Y., spot. yd.	.500	.500	.500
Army duck, 37", 13 oz., yd.	1.40	1.40	1.51
Blended printcloth, 64", 78x54, yd.	.79	.78	.72
20s combed yarns	1.89	1.89	1.96
Wool 64s, Staple, lb.	3.50	3.50	4.50
CHEMICALS			
Acrylonitrile, tanks, lb.	.400	.400	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	70.00	65.00	91.00
Benzene, petroleum, tanks, Houston, gal.	.95	.97	1.11
Caustic soda, 76% solid, drums, carlots, cwt.	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb.	.55	.55	.55
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.845	.845	.735
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.42	.49	.58
Naphthalene, crude, tanks, lb.	.16	.16	.22
Phthalic anhydride, tanks, lb.	.40	.41	.35
Polyethylene resin, low density liner film grade (market place), lb.	.390	.440	.525
Polypropylene, homopolymer grade (market price), lb.	.430	.430	.525
Polystyrene, general purpose grade (market price), lb.	.545	.545	.600
Polyvinyl chloride, pipe grade (market price), lb.	.395	.405	.420
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.425	.425	.450
Sulfur, crude, ex-terminal, Tampa, Fla., lt.	130.00	138.00	132.00
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb.	1.02	1.02	.87
Xylene tanks, gal.	.875	.950	.910
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	342.72	334.33	336.75
Lumber 2x2 pine, mbf, cl	332.64	321.51	329.45
Plywood, plyform, ¾", msf, cl	598.00	608.72	578.79
Plywood, ⅝", msf, cl	360.17	354.72	399.05
Cement, bulk, ton, tl	63.24	63.14	65.45
Sand, ton, cl	7.03	7.12	7.67
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	47.89	48.67	48.01
Crushed stone, 1½", ton, cl	N.A.	N.A.	N.A.
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	89.59	89.59	N.A.
Reinforcing bars, whse base; per cwt	22.55	22.67	20.94
Asphalt paving AC-20	107.43	108.22	120.78
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	N.A.	N.A.	N.A.
Concrete sewer pipe, 24", prem. joint, per foot, cl	17.83	17.89	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	18.20	20.55	15.70
Diesel (reseller rack, Chi), gal.	.4950	.4950	.4275
Fuel oil No. 2 (N.Y.), gal.	.4835	.4885	.4375
Fuel oil No. 2 (Gulf spot), gal.	.4675	.4875	.3900
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	19.25	20.00	15.75
Gasoline (reg lded NY), gal.	.5275	.6085	.4910
Gasoline (reg unlded NY), gal.	.5125	.5885	.4700
Kerosene (reseller rack, Chi), gal.	.5810	.5775	.4750
Propane (Mt. Belvieu, Tex), gal.	.2050	.1988	.2100
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	103.00	102.00	120.00
Steel, No. 1 hvy., dlvd., Chi., ton	108.00	108.00	120.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.010	.935	.855
Copper, No. 2, East, wholesale buy, dlvd., lb.	.925	.860	.760
Brass, red, East, wholesale buy, dlvd., lb.	.970	.895	.815
Brass, yellow, East, wholesale buy, dlvd., lb.	.575	.570	.470
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.470	.525	.650
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.540	.600	.730
Zinc, old, East, wholesale buy, dlvd., lb.	.38	.38	.24
Lead, clean solids, East, wholesale buy, dlvd., lb.	.230	.220	.225
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	Nom.	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	10.00
Old newspapers, Chi., ton	Nom.	Nom.	10.00
Old white ledger, Chi., ton	75.00	75.00	85.00

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Transport rates increase less

Freight cost outlook by mode

(percent increase over previous year)



Source: Wharton Econometric Forecasts

Good news for buyers of transportation services: Rate increases this year look to average out a bit under the estimates made just a few months back by Wharton Econometric Forecasting Associates (the WEFA Group).

In their newly revised quarterly rundown (prepared exclusively for *PurchasingWorld* readers), analysts at the Bala Cynwyd, PA-based economic consulting firm put the 1989 overall increase at only 3.5%.

Some of the deceleration can be traced to the smaller demand gains anticipated for the current year. WEFA sees only about a 1.7% tonnage gain for 1989—well under the 3.1% advance racked up last year.

This, plus relatively moderate carrier material cost hikes (especially oil), suggests continuing modest rate increases. Wage pressures will accelerate a bit—but not enough to offset somewhat easier material costs.

WEFA's forecast then calls for an average transportation rate hike of only 3.4% in 1990 (actually under this year's estimated 3.5% advance). And even in 1991, the boost is put in the tolerable 4.5% range.

But averages hide some diverging mode-by-mode trends. Thus barge rates will actually be down by more than 5% this year—as corrections are made to offset last year's drought-inspired runup. Most other modes, meantime, are expected to come in with 4-5% boosts this year.

- **Trucking:** Don't expect anything like last year's big 8.2% tonnage increase—as manufacturing activity slows a bit. True, rates have advanced because of higher first half fuel costs—but nothing like the cost increases would have suggested.

Upshot: WEFA sees a 4.8% rise in rates this year—probably more than traffic increases would warrant but well under the percentage rise in costs. In 1990, expected lower fuel prices should allow rates to slow to a 3.5% rise before they pick up to 4.6% again in 1991 as labor rates advance.

- Railroads: The U.S. increase in exports last year helped make for a solid 5.2% ton-mile gain. This year's gain, however, will be less—despite the fillip provided by imports of goods in containers on doublestack cars.

As for rates, they continue to be held down by competition from trucks—and this could be a powerful tool in labor negotiations. Another possible rate-moderating factor is the productivity adjustment incorporated by the ICC for use in an adjustment factor in determining permissible rate hikes.

The adjustment reduces such increases whenever productivity grows—thus, in effect, passing efficiency gains on to shippers.

- **Air cargo:** Domestic traffic was up a dramatic 16.4% last year—with international freight rising by an even larger 20.5%. This was probably the reason for much of last year's big 8.2% air freight rate boost.

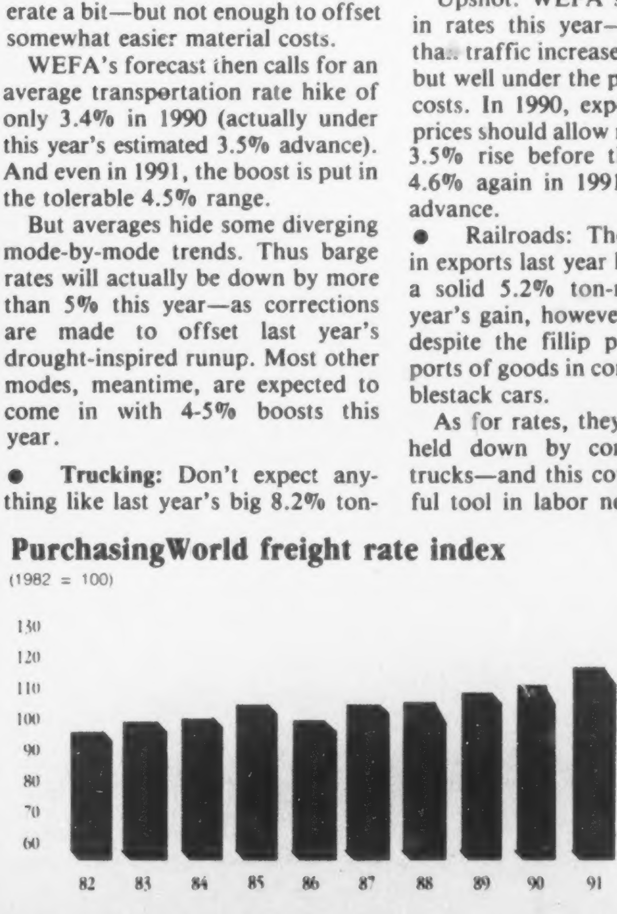
This year's smaller tonnage gains (so far under 10% on the domestic level) will help hold down rate hikes. So will competition in the international area—as domestic players like Federal Express, Emery, and United Parcel Service expand their services overseas. In any event, price hikes are forecast to average only 5.4% this year, and 3.2% in 1990.

- **Water freight:** Prodded by last year's drought, barge rates logged a 6.8% advance in 1988—a dramatic change from the flat to declining tag pattern of earlier years. This big rate hike, however, has to be regarded as a one-shot deal. Ergo, prices should drop back toward pre-drought levels this year—posting a 5.3% decline.

Longer term, WEFA looks for a gradual return to normalcy—with rates rising 1.7% and 3.9% in 1990 and 1991, respectively. **PW**

PurchasingWorld freight rate index

(1982 = 100)



INDEX	% CHANGE
1981	11.0
1982	2.0
1983	3.0
1984	0.6
1985	4.6
1986	− 1.2
1987	3.0
1988	4.7
1989	3.5
1990	3.4
1991	4.5

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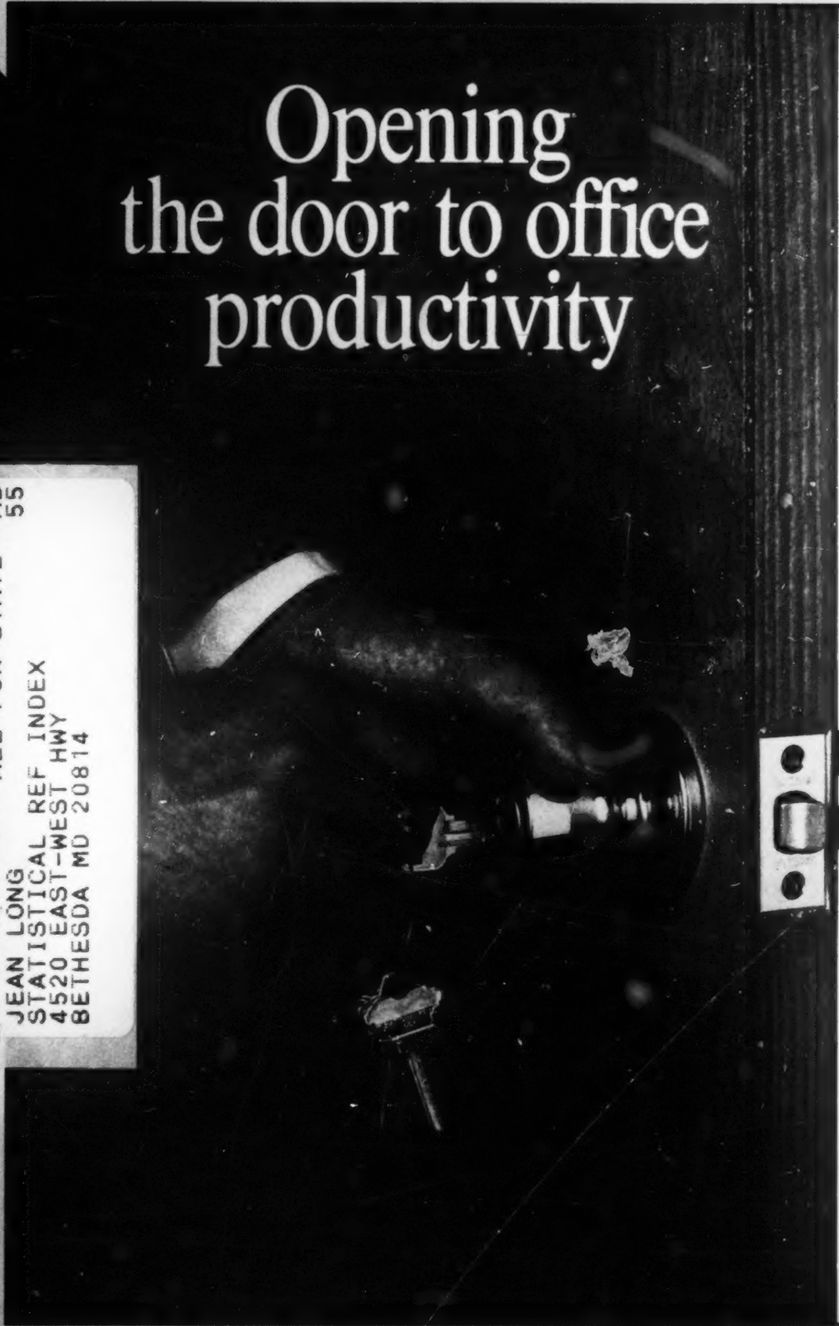
THE BUYER'S MAGAZINE *OCTOBER 1989*

Opening the door to office productivity



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Product listing:

What's new in fax, ETs, copiers

PW survey:

Prices steady

NOMDA show:

Stiff foreign competition seen

CBEMA reports:

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Hedging your commodity bets • Buyers' review

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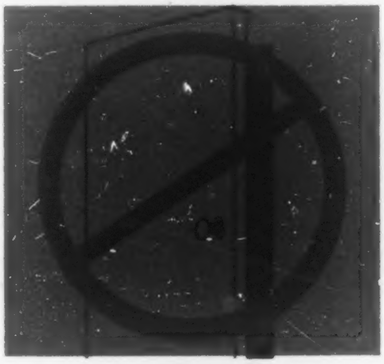

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PurchasingWorld

PW POINTERS

Robotics firms combine strengths

Hobart Brothers (Troy, OH producer of robotic arc welding systems) and Yaskawa Electric (Japanese industrial robot maker) have combined their product, engineering and marketing strengths to form a one-stop shop for what the company calls "high-reliability automation." The new company, Motoman Inc., Troy, will integrate factory automation, robotics and vision systems to simplify planning and installation of such systems in building new plants or updating older ones. Included in the new company is Multicon division, formerly a Cincinnatti systems integrator, which has engineered more than 220 automation systems ranging from medical to paper product industries. *Motoman, 400 Trade Square East, Troy, OH 45373* **Circle 280**

Transportation exec diary, guide

This transportation guide features industry statistics, a calendar of events, stock market performance, key association addresses, and government agencies as well as a daily planner. *International Thomson Transport Press, 424 West 33rd St., New York, NY 10001* **Circle 281**

FedEx puts tiger in its tank

With its August acquisition of Flying Tigers, Federal Express became the world's largest full-service all-cargo airline, with 19 Boeing 747s, 114 727s and 30 other jumbo jets. The system links markets in Europe, the Far East, Australia, New Zealand and Latin America with North America. Along with the merger, the company introduced its domestic Heavyweight service, designed for delivery of "virtually any size shipment" by the second business day morning. Merger of the two companies brings the total number of employees to 80,000 worldwide. *Federal Express, Memphis, TN* **Circle 282**

3M Telcomm named supplier of the year

In honoring suppliers who meet product and service specs, provide defect-free quality products, have excellent on-time delivery records, and issue invoices in accordance with contract terms, Ameritech Services has recognized 3M Telcomm (Austin, TX) as supplier of the year for 1988. The 3M division manufacturers terminating and connecting systems for the telecommunications industry. According to William Yablecki, executive director of purchasing and material management at Ameritech, "In 3M, 'providing service' is ingrained in their culture." *Ameritech Services, 1900 E. Golf Rd., Schaumburg, IL 60173* **Circle 283**

Study outlines gas cooling options

A new study by the American Gas Association shows that natural gas engine driven chillers are an "economic and attractive" space cooling option in many commercial building applications. The A.G.A. study says that gas space-cooling technologies can compete with electricity in many applications. Copies of the study are available from *A.G.A. Public Information, 1515 Wilson Blvd., Arlington, VA 22209 or call (703) 841-8661.* **Circle 286**

Industrial workstations—how big?

A 200-page study of industrial workstations reviews hardware and software requirements of XT/AT personal computers configured for process control or factory automation, identifying major participants in this fast-growing market as well as user markets and trends. According to the report, the market has quadrupled in the past five years and will reach a billion dollars in hardware sales in five years, with software adding as much as 50% to this figure. The report, NC-103, is available from *Newmedia Communications, P.O. Box 1667, Riverside, CA 92502.* **Circle 287**

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by Robert S. Reichard, executive editor

Prices: more downs than ups

The moderating price trend, first noted a few months ago, is still going strong. Especially encouraging: both purchasing managers and Uncle Sam have actually reported more declines than advances over the quarter just ended. The reasons aren't too hard to find: demand, while still in the plus column, can hardly be characterized as robust. For the year as a whole, only a 2.5% advance in industrial output is seen—less than half the 5.7% jump of 1988.

On the other side of the market equation, supply is also pointing toward more price restraint. And it's not all due to today's more sluggish demand advances. A good part can be traced to higher capital spending totals which, in turn, are translating into new capacity increases. In any case, operating rates, while still relatively high, are off a full percentage point from peaks earlier this year. And if you zero in on some raw material areas such as steel, the utilization rate fall-off has been a lot more precipitous than suggested by the overall average.

Other positive (price-restraining) factors would have to include 1) increasing buyer resistance to new price-boosting attempts, 2) continuing implementation of cost reduction measures—even by firms with healthy profit margins and 3) a stabilized dollar which is helping to keep import prices in line after the increases of the past 12-18 months.

The big question, of course, is where we go from here. As of now, the picture can perhaps best be characterized as cautiously optimistic. On the plus side is the fact that the forces just noted are expected to prevail through the remainder of the year and probably into early 1990.

On the other hand, it would be unrealistic to expect the stable-to-fractionally lower industrial price pattern of recent months to continue indefinitely—if only because wage costs are still in a moderately rising trend. Year-to-date figures here, for example, suggest that unit labor costs in the private non-farm economy will be up about 4% this year.

While hardly anything to panic about, it does represent an uptick from last year's 2.7% rate. More important, labor costs have traditionally called the price tune over the longer pull. And with good reason—since roughly two-thirds of every GNP dollar can ultimately be traced back to somebody's or some industry's labor outlay.

Some economists dub this labor cost increase as the core or underlying rate of inflation. And it's no coincidence that consumer prices (ex the volatile food and energy sectors) are now also rising at around this same 4% rate.

Using this core rate as a guideline, most forecasters see consumer price averages remaining somewhere in this range for 1990. The major econometric models are of the same mind, pegging next year's cost-of-living increase at 3.9% (Wharton) and 4.4% (DRI), respectively.

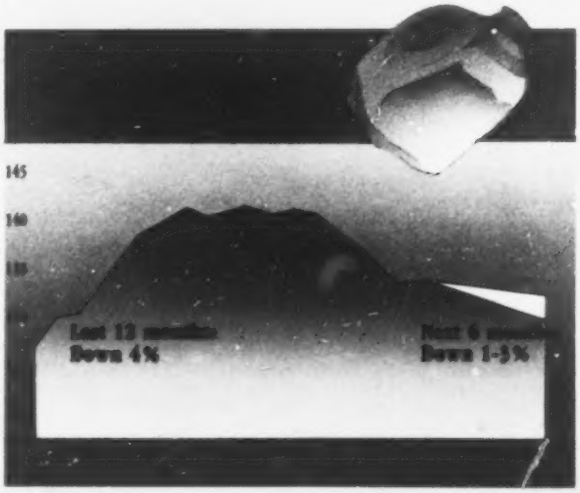
The latest Data Resources Institute industrial price breakdown (prepared especially for ***PurchasingWorld*** readers) tells much the same story—with modest increases projected for the majority of raw materials, semifabricated items and finished goods.

Most businessmen, however, say they can live with these increases. By and large, they have given up on the 1-2% annual rates of rise of the 1950s and 1960s—and now regard 4% inflation as the price they have to pay for continued economic growth.

Nor is this rate of inflation limited to the U.S. Price boosts in most other industrial countries are expected to be of the same magnitude—with one projection by the Bank of America putting the average boost for six key nations at 4.4% this year and 3.7% in 1990.

In resins, buyers make the calls

CURRENT SITUATION: Buyers are calling most of the signals again. Low-density polyethylene, for example, fell 5-7¢/lb. in late summer—bringing liner grade down to 37-39¢/lb. Also falling in recent weeks: high-density polyethylene (down 2-4¢/lb. for liner grade), polypropylene (down as much as 2¢/lb. for homopolymer grade), polystyrene (down 4¢/lb. for general purpose resin), PVC (down 3¢/lb. for pipe grade), and ABS (also down 3¢/lb. for pipe grade). **Behind the easiness: a leveling off in purchases plus a vastly improved supply situation.**



DEMAND: This year's overall gains are likely to fall far short of 1988 advances—with year-to-date figures suggesting a 1-2% increase (*versus* 11.6% in 1987 and a 1988 advance near 3.4%). Behind the dropoff: slower economic growth and downstream inventory paring. **Best showing should be in LDPE, PP and ABS** where gains as much as 5% are still possible. **On the other hand, HDPE looks to fall about 1%.** Exports, meantime, seem to be holding up better—with year-to-date figures indicating a 7% advance *vis a vis* 1988 levels.

SUPPLY: A big drop in operating rates documents the shift to a buyers' market. As recently as 1987, the industry was operating at 93% of its potential. This year the figure is put at only 85%, based on a combination of decelerating demand gains and big new increases in capacity. On the latter score, **the industry will be adding more than 8% to its potential this year—with bigger-than-average advances scheduled for PP (more than 12%), and PS (about 10%). Nor is that the end of the line. Next year, overall capacity gains are expected to average out near 9.5%**—with HDPE and PVC expected to come in at double-digit levels.

PRICE OUTLOOK: The projected demand/supply trend would seem to point to further softness. So would the current leveling off in such feedstocks as ethylene, polypropylene and benzene. But these declines, following the recent big slide (see above), should be relatively modest. **Averages look to be down 1-3% by next spring.** Beyond that, it all depends on the general economy—though even with some demand pickup, prices should remain well under the highs of this past winter and spring.

Demand bouys industrial gases

It's going to cost quite a bit more for liquid and bulk oxygen, nitrogen, argon, and liquid helium as major producers announce a substantial 7.5% price increase. Blame this second increase of the year on good demand—plus pressures stemming from higher production costs and the need for capital expansion funds. New unit prices for large volume users: oxygen—31¢/cscf (hundred standard cubic feet), nitrogen—29¢/cscf, and argon—$2.37/cscf.

Copper market is nervous

Prices continue to back and fill—but at relatively high levels as production stoppages keep the market nervous. Two other bullish factors: 1) demand seems to be holding up quite well for the upcoming fourth quarter and 2) global inventories are very low—the equivalent of only 3.8 weeks of consumption. But with tags far above late spring and early summer lows, there remains the potential for a substantial correction. And long-run, declines seem inevitable as new capacity gradually comes onstream.

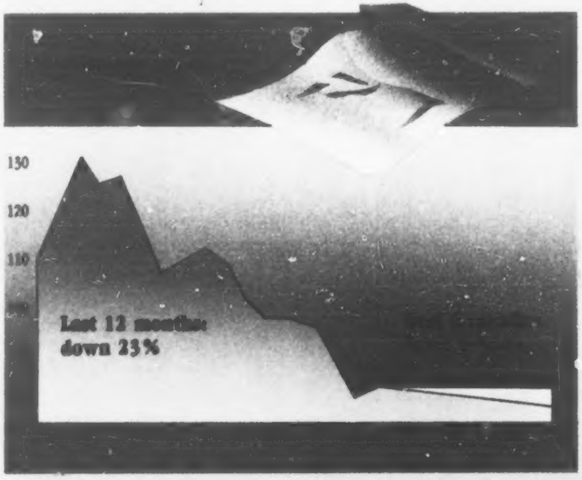
Aluminum demand steady

CURRENT SITUATION: Domestic demand is holding up well, and a somewhat easier supply has helped put some downward pressure on ingot. The bellwether merchant tag has dropped into the low 80s—well under the $1.19/lb. high hit earlier in the year and even further under the $1.52/lb. all-time peak of 1988. Another straw in the wind, the industry recently decided to freeze aluminum can pricing through the balance of the year.

DEMAND: Look for 1989 shipments to rise only fractionally (maybe 1% or so) over last year's 8.18 million tons (including exports). Behind the leveling off: a combination of slower growth in consumer-related sectors, less ebullient capital investment, and a slackening off in exports. On a more bullish note, the industry expects no major defection of canmakers to steel. True, aluminum costs a bit more. But the convenient recyclability of the light metal outweighs the cost differential.

SUPPLY: Things are easing up after late 1988-early 1989 tightness. The fact that foreign producers are stepping up output at a time when demand gains are easing also suggests improved availability and maybe even some modest inventory buildup. So does the continuing rise in the supply of recycled metal. **For the long pull, plans for new and expanded smelters should keep production potential above demand.**

PRICE OUTLOOK: Continuing softness—given the likelihood of ongoing supply/demand improvement—seems inevitable. Ingot, for example, could be flirting with the 75¢/lb. barrier before too long. Any near-term decline in fabricated products, however, is likely to be limited—though some discounting is possible by year-end. The outlook beyond early 1990 will, of course, depend on the general business trend. Assume only modest long-term gains, however, and prices look to remain steady to slightly lower, **with little chance of ingot returning to the $1/lb. and higher levels of a few months back.**



Energy tags should level

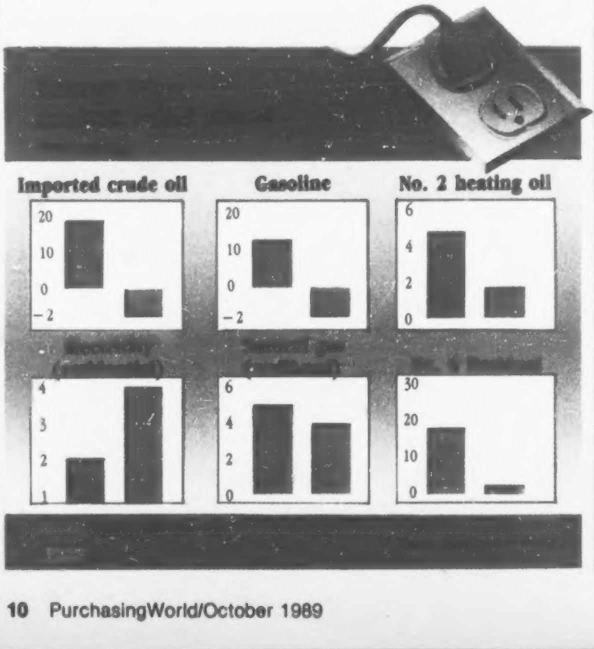
Relatively stable crude oil prices suggest a leveling off in energy prices over the next year or so.

New Department of Energy projections, for example, point to decelerating price increases and even a few small declines for overall 1990 (see chart). The only exception: a slightly faster rate of increase for electricity.

Another factor behind the modest respite: reduced demand pressures. This year the overall gain in energy consumption is put at only 1% (*versus* 4.3% in 1989). And next year's increase won't be all that much greater (1.9%).

A more detailed product-by-product price outlook (assuming that imported crude remains near $17/barrel) follows:

- **Gasoline:** The trend will be down. Pump tags could sink to near $1/gallon again by winter. And the subsequent seasonal pickup next summer will be modest—with averages at that time lagging 2% under 3Q 1989 levels.
- **No. 2 heating oil:** this winter's seasonal advance could bring retail averages up to 85-89¢/gallon **(versus 82¢/gallon in the current quarter).**
- **No. 6 resid:** seasonal pressures should bring the average retail price up to $17.36/barrel by early 1990—about 6.5% above current 3Q readings. But they'll fall even faster after that—with next summer's averages running fractionally under current levels.
- **Natural gas:** the trend will be moderately up through the forecast period—with residential quotes hitting $6.91/thousand cubic feet by next summer (up about 4% from recent readings).
- **Electricity:** a 4% increase is seen for 1990 (compared to 2% this year). Behind the runup: somewhat higher capital costs which should more than offset increased availability of lower cost hydroelectric power in some regions.



AT&T awaits dumping ruling

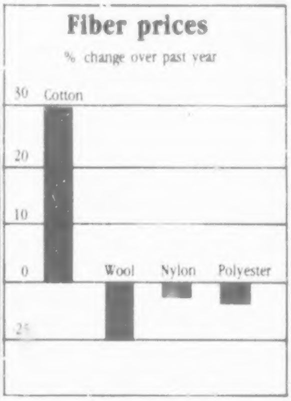
Budget for advances of up to 10-15% in PBXs and key systems—if, as expected, AT&T wins its pending dumping case against several small manufacturers of small business telephone equipment. Point to keep in mind: A number of Japanese, Korean, and Taiwanese firms are charged with selling the equipment in their own countries at prices up to 179% higher than the same equipment offered here. On a more optimistic note: cellular phones continue to come down, as models that sold for $2,000 a few years back now move for only $200.

Lasers push dot matrix

Laser models which have spawned the desktop publishing industry are heading for new price declines. One new model, just introduced, will go (after street discounts) for under $1,000—off 33% from tags of other recent models. Such low quotes could well expedite the shift away from dot matrix models that currently dominate the market.

Fiber tags are mixed

Prices are mixed—mostly up. On the bullish side are 1) cotton, where a snugger supply has pushed up prices into the upper 60s range (some 15¢/lb. above a year ago) and 2) manmades where recent increases have been posted on polyester, rayon, nylon, and acrylics. And a further increase in polyester is seen by early 1990. Wool is about the only fabric bucking the uptrend—as prices fall as much as 20-30% under mid-1988 unsustainable highs. This, in turn, has made for a drop in wool consumption. Another downward-tugging factor: increasing wool production as Australian output rises 2% over the past year, with another 7% gain anticipated over the new year.

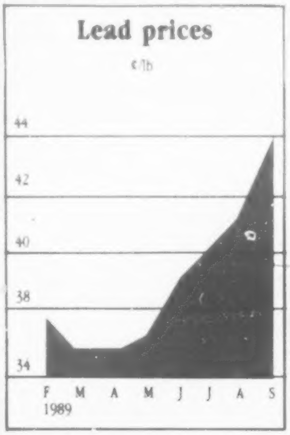


Price cuts to move PCs

Price declines ranging upwards of 10% in some cases have been announced—in large part to prepare the way for introduction of new more powerful models. And in another move, Hewlett-Packard has unveiled a less-than $4,000 workstation—a move that is expected to set off a new round of price cutting in this sector. Elsewhere in the computer area, a new pocket sized model (from Poqet) has hit the market—one that can fit easily into a jacket pocket. Cost: $1,995.

Lead prices riding high

The heavy metal is riding high. Several hikes have brought tags up into the mid-40s range—close to 10¢/lb. above early spring lows. Behind the runup: the beginning of the battery-buying season, minor production interruptions, and relatively tight supplies. Indeed, given current market conditions, a further price rise, perhaps into the upper 40s seems like a good bet by sometime this fall—with prices after that depending on how winter temperatures affect battery demand.



Alloys range downward

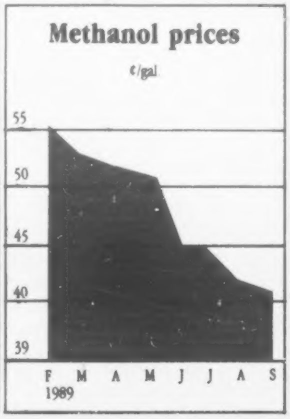
Spot prices on chrome, silicon, and manganese alloys have dropped—with some tags down more than 20% since late spring. Example: recent ferrochrome quotes (60-70% chromium) are down in the 60-63¢/lb. of chromium range (*versus* near 80¢/lb. as recently as May). Ferrosilicone declines are equally impressive—with the 75% grade quoted at only 40¢/lb (*versus* 60¢/lb. earlier this year). Declines in ferromanganese have been less precipitous—from the previous $650/ton peak to $600-620/ton recently.

Tantalum faces slide

Ore prices are sliding—with material moving at only $32-35/lb. of contained oxide—a sharp drop from the $50/lb. peak of last year. And further near-term declines to near $30/lb. seem inevitable. One reason: poor demand.

Capacity pushes methanol tags

Contract tags have slipped into the low 40s range—with some discounted material moving for as low as 36¢/lb. And spot sales are even lower. It's all a far cry from the 60¢/lb. (contract) and 80¢/lb. (spot) peaks prevailing at the end of last year. Behind the big slide: a combination of restarts and new capacity—enough to shift the near 281,000 metric ton global deficit of two years ago to an estimated surplus.



Semiconductors slow, electronics take breather

The nation's electronic components market seems to be heading for a breather. But the declines (in both demand and price) will be slight—nothing like the 1985 plunge.

So say analysts at the Electronics Outlook Corporation. The San Francisco, CA-based research outfit feels the slowdown will be most dramatic in semiconductors—an area which has enjoyed exceedingly good growth rates over the last two years. Domestic OEM purchases in current dollars in 1988, for example, were 29.5% higher than the equivalent buys of 1987.

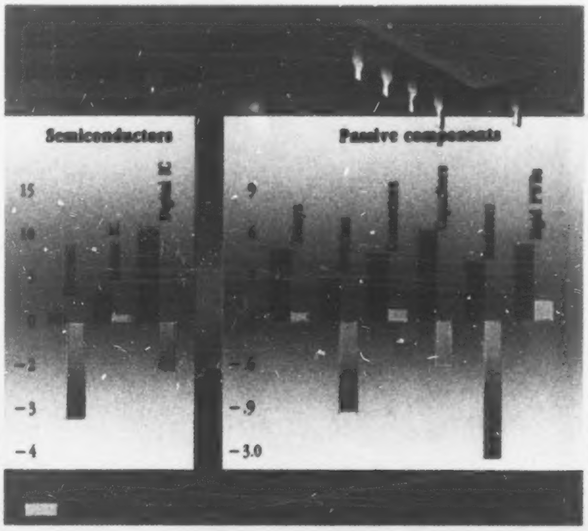
But as a result of a recent slowdown, overall 1989 results are expected to drop below the double-digit range. Best bet at this time: about a 9.5% advance. And even this will look good when compared to next year when 2% is expected.

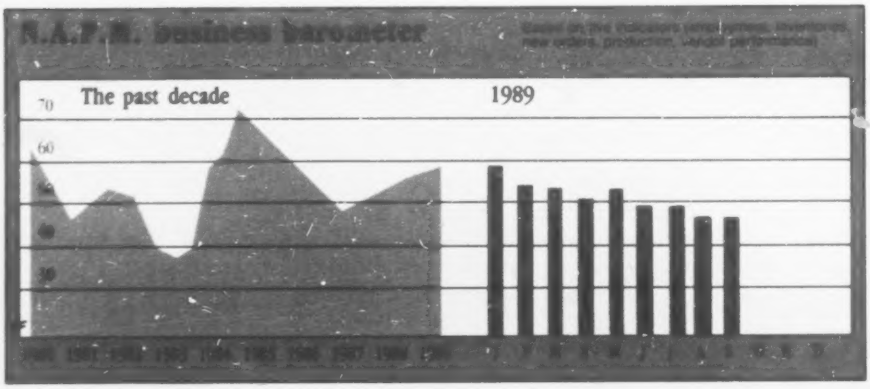
Price as well as physical demand should be sparking this changing semiconductor dollar pattern—with two factors expected to put downward pressure on tags. For one, the initial burst of the 286- and 386-based PC demand has been satisfied.

Secondly, supplies of DRAMS and other high-priced, short-supply ICs are being ramped up aggressively to the point where supply will exceed demand again in the near future. Upshot: prices generally can be expected to soften in the months ahead.

A breakdown of current dollar semiconductor expectations is shown in the accompanying chart. Only linear ICs are expected to maintain positive growth in 1990, and here the gain will be a weak 1.3%.

Looking further ahead—while semiconductor growth turns negative in 1990, passives will still manage a fractional 0.6% advance—with rigid PWs and connectors making the best showings.




N.A.P.M. business barometer

KEY ECONOMIC TRENDS

No downturn in 1990

Fears of a late 1989-early 1990 downturn are beginning to fade.

True, few are expecting any big spurt. But, by and large, consumer and business spending is holding up tolerably well—enough to keep industrial production and real GNP in the plus column through the next few quarters.

On the consumer front, personal expenditures adjusted for inflation are still in rising trend—belying reports of a consumer pullback. This is even true in autos where sales of domestic models (with the help of large rebates) have again jumped above the eight million seasonally adjusted rate—making for the strongest showing in nearly a year.

Viewed from another perspective, the average family continues to save only a relatively small fraction of its income. Latest reports here suggest a 5.5% rate for the just-ended third quarter (see chart). While above recent levels, it is still under the 6%-plus average of the past 25 years.

Factors that are probably keeping family spending up: a drop in oil prices, fractional declines in interest rates, the higher stock and bond markets of recent months, and fairly strong consumer confidence.

On the latter score, a new Conference Board survey finds that 4.1% of its respondents plan to buy a new car over the next six months—above the 3.6% rate of early summer. And while appliance-buying intentions are down, the slippage is small given the recent drop-off in new housing activity.

This housing softness, meantime, seems to be showing signs of bottoming out. Thus permits, a lead indicator of future starts, turned up over the past month (see chart)—probably reflecting a slight dip in mortgage rates.

Also encouraging in the construction area—new contracts have turned up after several months of decline. This is prompting George Christie, VP of Dodge (the compiler of these numbers) to observe that construction could be a source of support to the economy in the months ahead.

Exports also look to remain a near-term prop. As Bob Bretz, chairman of the NAPM Business Survey committee puts it, there is continuing strength in export orders despite the recent strengthening of the dollar. If nothing else, this should help keep the manufacturing sector of the economy on an even keel.

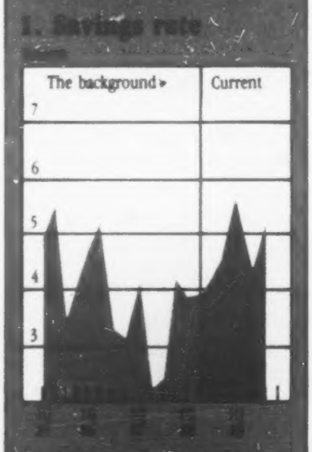
Finally, there's the still-strong capital spending pattern. A new government survey points to a 7.7% real increase here for the current year—actually one percentage point more than envisioned a few months ago when a similar survey was taken.

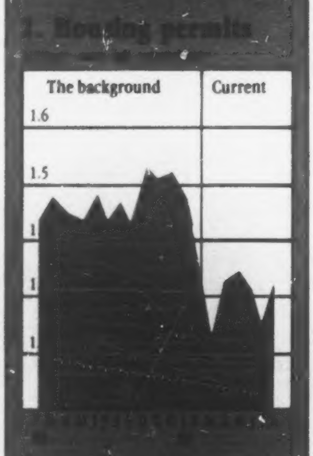
Three factors are suggested for the still-buoyant capital investment outlook: 1) Diminished fears of a recession, 2) the need to improve efficiency in increasingly competitive world markets, and 3) the need to install new environmental controls.

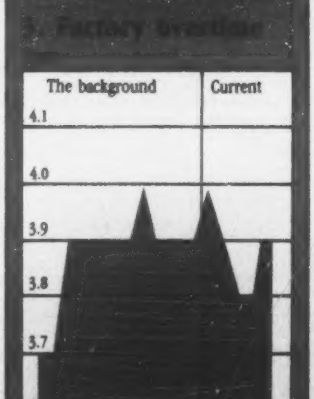
All the above is reflected in what most economists describe as a still-strong employment picture. The jobless rate, for example, remains at just above 5%—and overtime (a barometer of labor demand) has been holding up surprisingly well.

Moreover, the near-term

Leading indicators


1. Savings rate


2. Housing permits


3. Factory overtime

outlook isn't all that bad. Thus a new survey by Manpower Inc; suggests even more job openings for the fourth quarter—with the 26% contemplating the addition of new workers far outweighing the 9% who plan to cut.

All this is not to say that there aren't problems. For one, inventories have tended to inch up over the past few months. And it's questionable whether the current strength in exports and car sales will hold up much longer.

Even so, odds favor continued (albeit modest) economic gains into 1990. Best bet for real GNP: advances of 1.5%-2% through this 6-month period.

R & D spending still lags

U. S. industry may be talking about increasing its overall competitiveness. But precious little is being done about it—at least on the research and development front.

The evidence: a new DRI/McGraw-Hill survey which suggests that outlays in this crucial area will increase by less than 1% in real terms this year—compared to 3.7% in 1987 and 1.3% last year (see chart).

The slowdown is also highlighted by the fact that average annual real gains over the 10-year period ending in 1985 came to a much larger 6.6%. And viewed from still another perspective, 1989 marks the third time in four years that R & D has expanded more slowly than the overall economy.

But analysts put much of the blame for the slowdown on U.S. industry's obsession with short-term profits rather than long-term opportunities. In light of the rash of mergers, restructurings, and takeovers, businesses have apparently grown more cautious in their spending commitments.

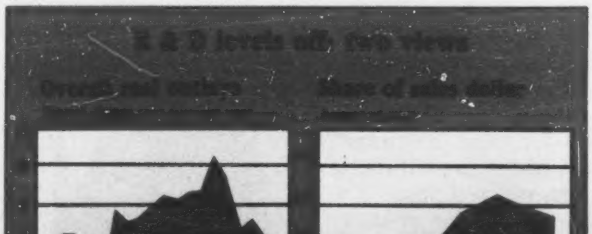
Persistently high real interest rates, adds DRI, have also encouraged strategies geared to short-term goals. Moreover, the slowdown in profit growth expected over the next few years could well exacerbate this reluctance to fund R & D projects. Still another possible factor in the sluggish R & D trend: policy makers have already cut the R & D tax credit and continue to threaten its elimination.

On a somewhat rosier note, the R & D/sales ratio, while slipping, is still relatively high—in the 3.4% range—far above the 2.1% low hit at the end of the last decade.

But all the above averages tend to hide some conflicting trends. In current dollar terms, metal mining firms project a 15.6% rise this year—with above-average boosts also seen for the stone-clay-glass, rubber, and plastic sectors.

Unfortunately these account for a very small slice of the R & D pie. Thus the biggest spenders (aerospace and electrical equipment) are boosting current dollar spending only 6.1% and 3.1% respectively. Outlays for chemicals, cars, and non-electrical machinery aren't all that robust, either.

DRI estimates that a permanent 1% reduction in the growth rate of real R & D eventually leads to a 0.85% cut in the economy's potential growth rate.

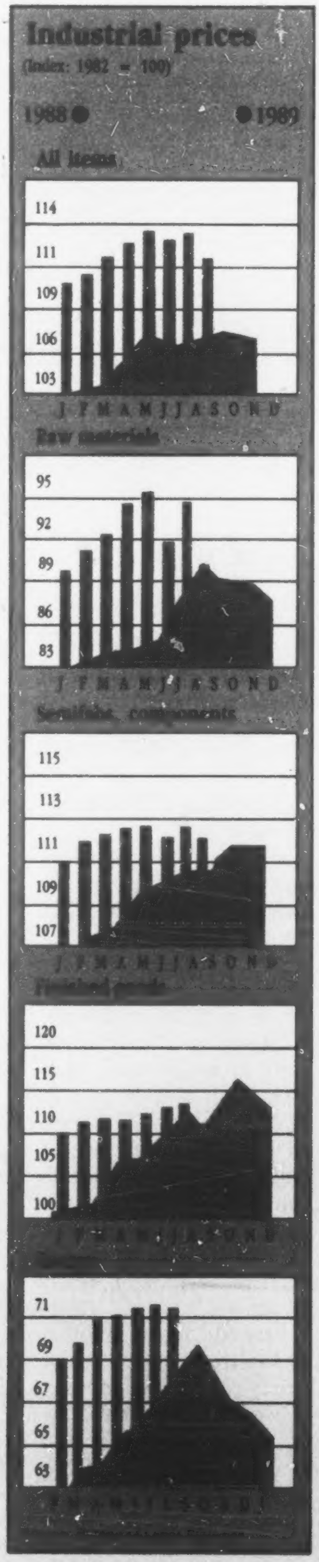


CURRENT PRICES

A good month against inflation

Chalk up another good month in the fight against inflation. Particularly impressive was the third consecutive decline in Uncle Sam's industrial producer price index. And all indications suggest a continuation of this trend into early fall.

The major downward push this past month came from the fuel and energy sector which dropped an eye-opening 4.6%. But energy had plenty of company this time around—as sizeable drops were also recorded in organic chemicals, plastic resins, and fin-



ished steel products.

Looking at these and other key product lines in somewhat more detail:

- **Energy:** Gasoline (off 11%) led the decline here. But considerable softness was also noted in home heating oil, natural gas, residual fuel, and crude oil. Only coal managed to buck the slide.
- **Plastics:** Virtually every major commodity resin fell last month. Result: a hefty 3.8% overall drop—enough to bring averages well under year ago levels.
- **Chemicals:** Organic types—led by ethylene, styrene and propylene were off about 1%. To be sure, overall industrial chemicals held steady as alkalis and industrial gases rose. But the prognosis is for more overall easiness as supplies begin to mount.
- **Metals:** The 0.5% drop in steel mill products is probably underestimated—as the government index often fails to pick up price shading. Aluminum and ferroalloys were also weak. But copper, hit with global supply interruptions, managed a sizeable advance.
- **Capital equipment:** Rises predominated here as the plant and equipment boom fed demand. The overall boost, however, remained modest—0.3% for the month or 3.6% at annual rate. Increases were noted for oil and gas machinery, metal forming tools, textile machinery, pumps and compressors, and industrial material handling equipment.

Other areas where increases were reported include fasteners, commercial furniture, and textile mill products—all up about 0.5% over the month.

PROCUREMENT STATUS REPORT

Leadtimes stay level

More good news on the procurement front. Not even the start of the seasonal fall pickup has had much of an effect on what can now only be described as a relatively easy market.

Leadtimes, for example, which normally rise at this time of year, remain relatively unchanged at recent summer levels. Confirmation here comes from *Purchasing World's* latest leadtime index reading. At 50, it signifies that any stretchouts that are occurring have been pretty much balanced out by reduced waits in other areas.

There has also been a speed-up in vendor deliveries. NAPM's speed of delivery index reads only around 45 (anything below the neutral 50 mark means that there have been more speedups than slowdowns).

The fact that inventories are still declining—despite a level-to-slightly-higher rate of production activity—also has to be taken as a sign of confidence that buyers can get what they want when they want it. In any event, the NAPM accumulation index is down near 43—eight significant points under the neutral 50 mark.

Then, too, forward ordering has come in. At latest report some 55% of queried PMs were committing 30 days or less in advance—up three percentage points from a month earlier. And conversely, those ordering 90 days or more in advance continue to decline.

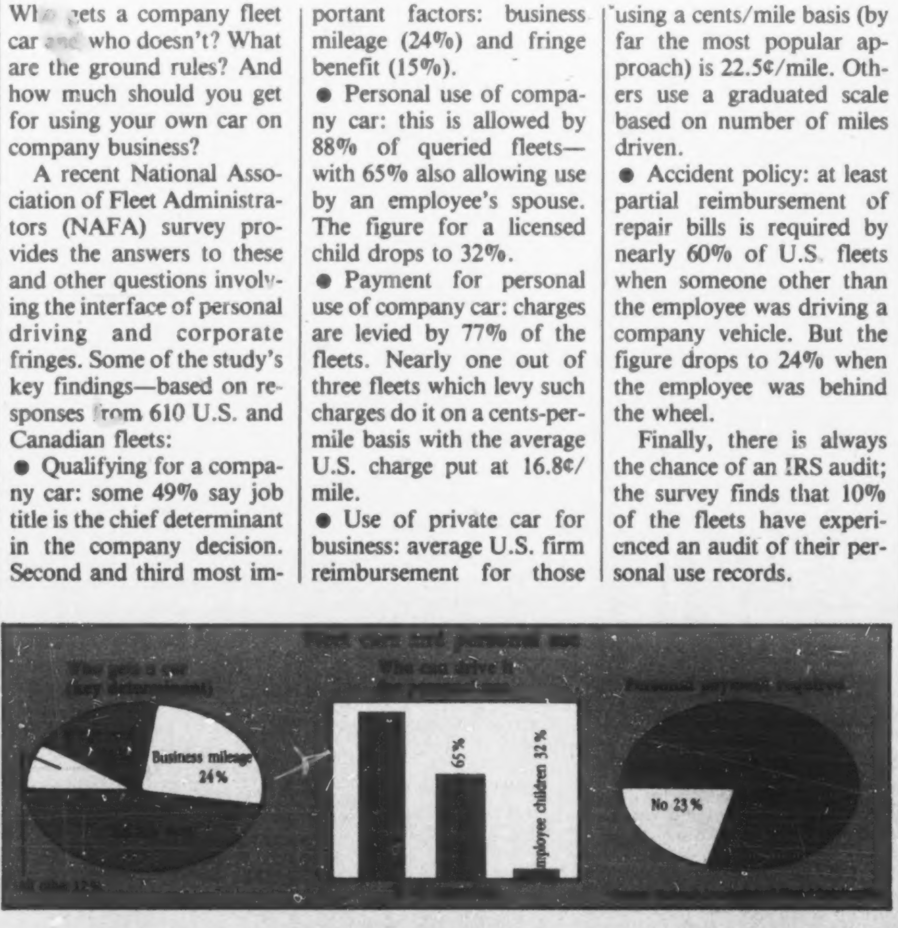
Study highlights fleet car use

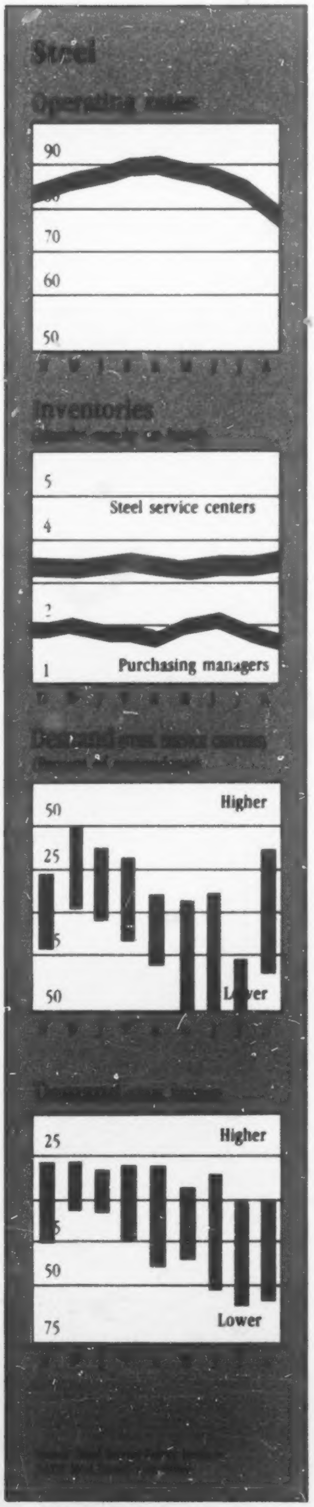
Who gets a company fleet car and who doesn't? What are the ground rules? And how much should you get for using your own car on company business?

A recent National Association of Fleet Administrators (NAFA) survey provides the answers to these and other questions involving the interface of personal driving and corporate fringes. Some of the study's key findings—based on responses from 610 U.S. and Canadian fleets:

- Qualifying for a company car: some 49% say job title is the chief determinant in the company decision. Second and third most important factors: business mileage (24%) and fringe benefit (15%).
- Personal use of company car: this is allowed by 88% of queried fleets—with 65% also allowing use by an employee's spouse. The figure for a licensed child drops to 32%.
- Payment for personal use of company car: charges are levied by 77% of the fleets. Nearly one out of three fleets which levy such charges do it on a cents-per-mile basis with the average U.S. charge put at 16.8¢/mile.
- Use of private car for business: average U.S. firm reimbursement for those using a cents/mile basis (by far the most popular approach) is 22.5¢/mile. Others use a graduated scale based on number of miles driven.
- Accident policy: at least partial reimbursement of repair bills is required by nearly 60% of U.S. fleets when someone other than the employee was driving a company vehicle. But the figure drops to 24% when the employee was behind the wheel.

Finally, there is always the chance of an IRS audit; the survey finds that 10% of the fleets have experienced an audit of their personal use records.





All the above doesn't mean that procurement problems have disappeared. Some 12 items are still listed as being in short supply by the NAPM—including such crucial components as bearings and motors.

But most PMs are confident that even this short list of tight items will shrink. The component parts listed, for example, should become a bit easier to find as demand levels off and capacity increases. And the same is true of some of the paper and chemical items on the short-supply list—areas where vendors have announced substantial capital expansion plans in recent months.

STEEL SCENE

Steel outlook improving

The steel demand outlook, while hardly buoyant, may not be as bleak as it seemed a few months ago.

Especially encouraging: the somewhat more optimistic nearterm expectations of distributors. The latest Steel Service Center Institute (SSCI) survey tells the story. For the first time since April, more distributors anticipate increases than decreases. The difference between the two groups is small, but it's a significant change from just one month earlier when those reconciled to order decreases outnumbered those hopeful of gains by a better than 2:1 margin.

Steel buyers, responding to an NAPM survey, aren't quite that optimistic. Nevertheless, the number anticipating decreasing receipts of metal over the next 90 days has dropped somewhat—from 65% a month ago to 57% currently.

Despite the modest improvement, the overall demand picture still has to be characterized as lackluster. In part, this may be due to the "inventory" factor—for stocks are still relatively high on the service center front.

Taking off on this, SSCI president Andrew G. Sharkey notes "Inventories have climbed every month this year and are now at their second highest level ever." As such, he anticipates that "members will work on getting inventory levels in line with the predicted slowing in average daily shipping rates through the next two quarters."

SSCI members seem to agree. Nearly three out of four queried say that their stocks are excessive—reaching the highest level in years except for one month in 1988. Implication: a major drive to bring them down over upcoming months.

Buyers, too, seem determined to bring stocks down. Specifically, 39% consider their holdings as too high (*versus* only 4% as too low)—with two out of three now contemplating lower levels over the next six months.

The potential inventory decline is also backed up by a new Wharton Econometric steel forecast which suggests that steel users will pare two million tons from their holdings over the next half year. That's in sharp contrast to the near flat stocking pattern of the past nine months.

One factor behind this "keep 'em lean" trend—aside from expectations of a so-so consumption pattern—could be reduced leadtimes and a generally improving supply outlook.

On the availability score, for example, more than nine out of ten steel buyers (92% to be exact) see no shortages ahead for the next six months. That's a lot different than a year ago when two out of three were concerned about at least one steel product line.

Prices could be still another factor behind the go-slow stocking pattern. Some 32% of queried service centers, for example, feel prices will be lower over the next six months—four times as many as the small 8% who anticipate higher steel tags.

Some price breaks are also reported on imports. This is especially true in the stainless steel sphere where 8% of surveyed service centers say they're saving 11-20% on imported metal. And about one out of five say they are buying cheaper carbon steel—though the savings in this case are in the somewhat smaller 6-10% range.

Also worth noting: increased overseas selling activity is reported by both service centers and steel

Import prices

(compared to domestic)

Steel Buyers
ABOVE 52%
SAME 35%
SLIGHTLY BELOW 13%
SUBSTANTIALLY BELOW 0%

SERVICE CENTERS (carbon)
ABOVE 0%
SAME 82%
5-10% BELOW 18%
10-20% BELOW 0%
OVER 20% BELOW 0%

buyers over the past few months. This, in turn, points to a pickup in steel imports—from about 17.5 million tons this year to something around 19 million in 1990.

Combine this additional import competition with improved availability and expectations of softer prices—and it all points to a continuing buyers' market in steel—through the remainder of the year and probably well into 1990.

This month's breakdown

Index: 1982 = 100

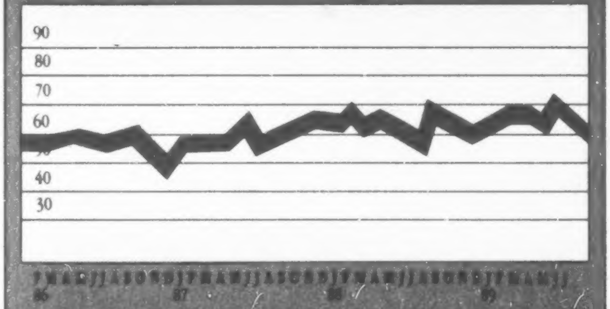
	Latest level (August)	% change from: Month ago	Year ago
Bearings	124.5	0	8.6
Bolts, nuts, etc	112.5	0.5	5.4
Chemicals, inorganic	111.2	2.8	9.7
Chemicals, organic	114.6	−1.0	2.7
Concrete products	111.2	0	1.0
Corrugated cartons	112.6	0	1.3
Cutting tools, small	111.9	1.0	4.3
Electric lamps (bulbs)	125.0	0.2	0.7
Electronic components	119.6	0.2	1.3
Fans and blowers	119.5	1.4	5.5
Foundry and forge products	115.1	0.2	4.5
Fuel oil (residual)	48.5	−1.8	22.5
Furniture, commercial	129.8	0.5	3.7
Gasoline	63.0	−11.0	1.3
Glass, flat	110.1	−0.2	−0.1
Glass containers	116.4	0	3.5
Gypsum products	108.0	−4.0	0
Hand tools	128.0	−0.1	5.7
Hand tools, power driven	117.0	−0.1	4.7
Industrial furnaces	125.2	0.1	3.3
Integrating and measuring instruments	120.3	−0.1	5.1
Internal combustion engines	115.4	0.4	3.1
Lubricating oil	111.7	0.6	5.0
Lumber millwork	128.1	0.2	4.6
Material handling equipment	112.4	0.3	4.1
Metal containers	110.9	−0.1	0
Metal mill shapes (nonferrous)	136.0	−0.2	3.7
Metal tanks	114.0	0	4.6
Motors and generators	129.6	−0.1	5.7
Motor trucks	116.4	0	3.5
Office and store equipment	109.8	0	2.1
Paperboard	140.3	0.1	4.3
Paper boxes and shipping containers	130.6	0.2	4.7
Paper office supplies	122.3	0.1	5.5
Paint	120.5	0.2	6.3
Plastic resins	132.0	−3.8	−3.6
Precision measuring tools	125.3	0	3.2
Pumps and compressors	115.8	0.3	5.7
Refractories	119.9	−0.1	5.4
Rubber belts and belting	114.3	0.5	6.4
Scales and balances	106.5	0.1	0.7
Steel products	114.1	−0.5	2.0
Switchgear	119.2	−0.1	4.9
Textiles, synthetic fibers	107.2	0.1	9.4
Textiles, gray fabrics	115.7	0.2	0.5
Tires and tubes	97.3	0.1	2.5
Transformers and power regulators	118.5	0.3	7.6
Welding equipment	122.5	0	3.5
Wire and cable	142.9	1.7	13.3

NAPM procurement trends

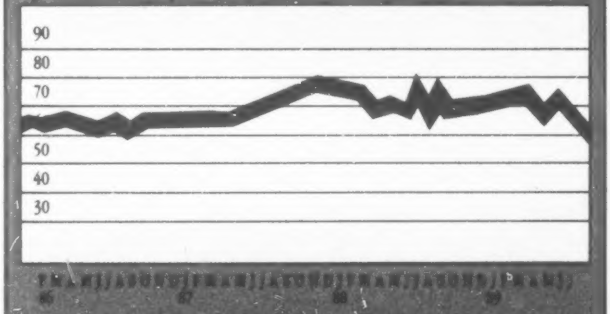
(seasonally adjusted diffusion indexes)

An index where 50 is defined as the neutral level: to the extent a reading is above 50, it represents an expansionary tendency. More particularly, rising inventory, prices, and new orders are seen as positive signs of economic growth. A trend toward slower deliveries is similarly interpreted.

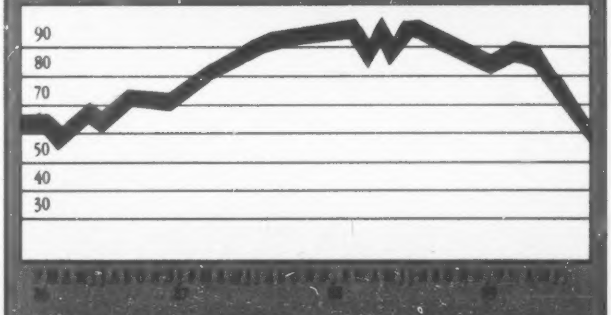
Inventories



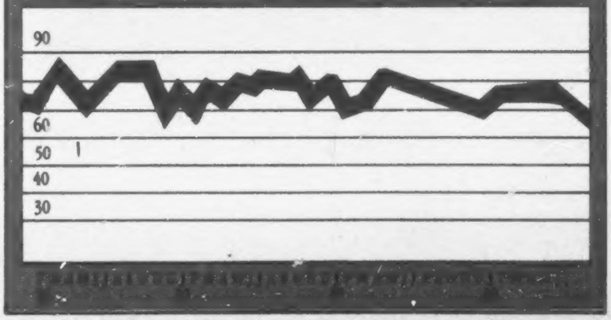
Speed of delivery

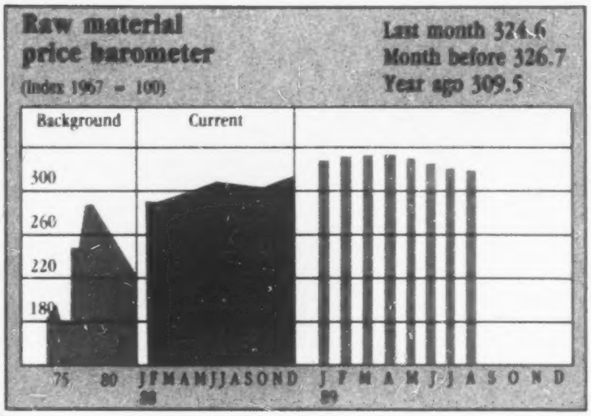


Prices



New orders




Raw material price barometer
(Index 1967 = 100)

Last month 324.6
Month before 326.7
Year ago 309.5

Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	18.70	18.70	16.50
Steel, bars, Pitts., cwt	18.70	18.70	16.50
Steel, bars, C.R., Pitts., cwt	23.95	25.20	19.45
Steel, plates, Pitts., cwt.	23.25	23.25	22.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	22.75
Steel, sheets, C.R., Detroit, cwt.	29.65	29.65	28.15
Steel, strip, C.R., Chi., cwt.	36.18	36.18	36.18
Steel, basic wire, Pitts., cwt	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.810	.820	1.260
Antimony, N.Y., dealer, lb.	.90	.95	1.05
Beryllium-copper, cost ingot, lb.	5.90	5.90	5.90
Brass, red, 85%, [sheet], lb.	1.97	1.81	1.71
Brass, yellow, [sheet], lb.	1.93	1.77	1.66
Cadmium, N.Y., dealer, lb.	4.60	4.60	7.20
Copper, electrolytic, wire bars, refd., lb.	1.34	1.18	1.07
Copper sheet, over 24 in., lb.	2.06	1.90	1.79
Lead, common, N.Y., lb.	.44	.42	.38
Magnesium, pig ingot, [99.8%], lb.	1.63	1.63	1.58
Mercury, 20 fl. lots, N.Y., fl.	262.00	270.00	360.00
Molybdenum, oxide, dealer, lb.	3.26	3.32	3.48
Nickel, cathode, dealer, lb.	5.20	5.85	6.00
Platinum, dealer, oz.	474.00	494.00	528.00
Silver, N.Y., oz.	5.10	5.20	6.54
Tin, N.Y., dealer, lb.	3.97	4.38	3.49
Zinc, Prime West, East St. Louis, lb.	.80	.82	.69
Zinc, die casting alloy, No. 3, lb.	.895	.930	.775
PAPER			
Uncoated book #3 offset, ton	1020.00	1020.00	1020.00
Watermarked bond, ton	1090.00	1090.00	1080.00
Gummed sealing tape, carton	18.71	18.75	17.78
Grocery sacks, ton	495.00	495.00	460.00
Solid bleached paperboard, ton	780.00	780.00	685.00
Kraft linerboard, 42 lb., unbleached, ton	410.00	410.00	410.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.284	.284	.284
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.22	1.22	1.20
Cotton middling, 1", N.Y., lb.	.688	.703	.505
Printcloth, 48", 80x80, N.Y., spot. yd.	.50	.50	.48
Army duck, 37", 13 oz., yd.	1.40	1.40	1.51
Blended printcloth, 64", 78x54, yd.	.78	.79	.68
20s combed yarns	1.94	1.89	1.96
Wool 64s, Staple, lb.	3.50	3.50	4.50

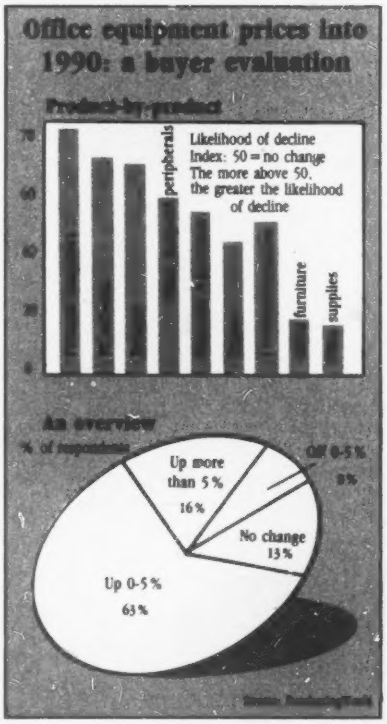
	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb	420	.400	.395
Ammonia, anhydrous, tankcars, Gulf Coast, ton	70.00	70.00	91.00
Benzene, petroleum, tanks, Houston, gal.	.98	.95	1.08
Caustic soda, 76% solid, drums, carlots, cwt	28.00	28.00	26.00
Cresylic acid [over 25%], tanks, lb	.55	.55	.55
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb	106	.106	.106
Glycerine, synthetic, tanks, lb	.845	.845	.735
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.42	.42	.58
Naphthalene, crude, tanks, lb	.16	.16	.22
Phthalic anhydride, tanks, lb	.40	.40	.35
Polyethylene resin, low density liner film grade (market place), lb	.390	.390	.515
Polypropylene, homopolymer grade (market price), lb.	.420	.430	.525
Polystyrene, general purpose grade (market price), lb	.505	.545	.600
Polyvinyl chloride, pipe grade (market price), lb.	.375	.390	.440
Soda ash, 58%, light carlots, cwt	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb	.365	.425	.450
Sulfur, crude, ex-terminal, Tampa, Fla., lt	117.50	130.00	132.00
Sulfuric acid, 66%, commercial, tanks, ton	66.86	66.86	66.86
Titanium dioxide, anatase, reg., carlots lb	1.02	1.02	87
Xylene tanks, gal	.875	.875	.910
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	343.50	342.72	336.00
Lumber 2x2 pine, mbf, cl	339.45	332.64	318.45
Plywood, plyform, ¾", msf, cl	598.00	598.00	576.95
Plywood, ⅝", msf, cl	360.17	360.17	388.35
Cement, bulk, ton, tl	63.34	63.24	65.48
Sand, ton, cl	7.01	7.03	7.47
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	47.99	47.89	49.01
Crushed stone, 1½", ton, cl	N.A.	N.A.	N.A.
Concrete blocks, sand/gravel, 8"x8"x16", per hundred	89.04	89.59	N.A.
Reinforcing bars, whse base; per cwt	22.55	22.55	20.94
Asphalt paving AC-20	107.22	107.43	116.70
Vitr. Clay Sewer Pipe, Prem Joint, 12", per ft, cl	N.A.	N.A.	N.A.
Concrete sewer pipe, 24", prem. joint, per foot, cl	17.83	17.83	N.A.
FUELS			
Crude oil (W. Tex Int Cush), bbl.	19.85	18.20	15.40
Diesel (reseller rack, Chi), gal.	.5675	.4975	.4480
Fuel oil No. 2 (N.Y.), gal.	.5475	.4835	.4350
Fuel oil No. 2 (Gulf spot), gal.	.5380	.4840	.4050
Fuel oil No. 6 (N.Y.) contract cargo, bbl.	18.50	18.00	16.00
Gasoline (reg lded NY), gal.	.6100	.5275	.5085
Gasoline (reg unlded NY), gal.	.5950	.5125	.4900
Kerosene (reseller rack, Chi), gal.	.6510	.5785	.4925
Propane (Mt. Belvieu, Tex), gal.	2160	.2050	.2150
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	99.00	103.00	117.00
Steel, No. 1 hvy., dlvd., Chi., ton	108.00	108.00	115.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	1.150	1.010	.920
Copper, No. 2, East, wholesale buy, dlvd., lb.	1.060	.925	.830
Brass, red, East, wholesale buy, dlvd., lb.	1.110	.970	.880
Brass, yellow, East, wholesale buy, dlvd., lb.	.615	.575	.470
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.510	.470	.665
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.570	.540	.750
Zinc, old, East, wholesale buy, dlvd., lb.	.380	.380	.240
Lead, clean solids, East, wholesale buy, dlvd., lb.	.240	.230	.225
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	Nom	Nom.	25.00
Paper, old corrug. box, dlr., N.Y., ton	Nom.	Nom.	5.00
Old newspapers, Chi., ton	Nom.	Nom.	10.00
Old white ledger, Chi., ton	90.00	75.00	85.00

[Sources: Metals Week, American Metal Market, Engineering News-Record (20-city averages), The Wall Street Journal, Journal of Commerce, Chemical Marketing Reporter.]

Buyers' market in office equipment

It's still pretty much of a buyers' market when it comes to office equipment procurement, say the majority of purchasing managers queried in a new nationwide *PurchasingWorld* survey. Some of the study's key findings (see chart):

- **Recent price changes:** the average advance noted by respondents over the past 12 months came near 2.8%—well under the nation's overall industrial inflation rate.
- **Near-term price expectations:** increases over the next 12 months are expected to average out to 2.1%—with one out of four equipment buyers anticipating some deceleration in the rate of advance.
- **Product-by-product price trends:** respondents see more price declines than increases for five of nine surveyed categories—personal computers, PC software, printers, other computer peripherals, and electronic typewriters. Major areas where increases are expected to predominate are office furniture and office supplies.
- **Demand:** purchases have been leveling off a bit. Indeed, some 52% see an edging down this year—*versus* 29% who plan on a level pattern and another 29% who feel totals may rise a bit.
- **Lease *versus* buy:** four out of five buyers say they purchase all their equipment outright. The other 20% (mostly service industries) also rely on leasing. But for the most part those who lease say the percentage of equipment being leased is remaining relatively stable.
- **Buyer role:** the need for compatibility, coordination and buying clout continues to push buyers to the forefront. One out of every three surveyed, for example, say they are now the primary decision maker. Another 50% are an integral part of the team making the ultimate vendor decision. Conversely, a declining few are now relegated to the position of being mere order takers.



Office equipment prices into 1990: a buyer evaluation

Source: PurchasingWorld

The competitiveness of overall markets is confirmed by both the industry (see unit price projections made by CBEMA) and Uncle Sam. On the latter score, the most recent government office equipment price index is running only a modest 2.1% ahead of a year earlier. Add in the somewhat larger increases in office supplies (not included in the Washington tabulation)—and the findings are pretty much in line with those suggested by the new *PW* survey.

Item by item, the softness is probably most apparent in fax machines where new technology and high volume have been permitting double-digit price decreases. It may seem hard to believe, but some low-end machines now move in discount stores for under $500.

Computers, too, continue to offer increasingly attractive bargains, say buyers. Many of these are centered in the lap-top, workstation and minicomputer areas. And hardly a week goes by without some vendor announcing cuts in previously released PC models.

To be sure, both buyers and producers are projecting some modest price rises in copiers. But they are certainly not across the board. Also new developments continue to push the cost of color copiers down—with one new model capable of duplicating 7.5 copies/minute available for $17,000. And for those looking for real bargains, another low-end model can be had for $6,000.

Peripheral equipment, according to one electronic equipment consulting firm (Dataquest) also continues to edge lower—with the average modem quote off 16% this year. Ditto, some communications equipment where the same consulting firm puts the PBX price per installed line at $697—off about 1% from last year.

But despite these favorable price trends, not everything is coming up roses for office equipment buyers. For one, the proliferation of new products is making it increasingly difficult to keep up with and evaluate what's on the market. This, in turn, raises the problem of obsolescence. Other headaches noted: 1) the need to constantly upgrade equipment, 2) finding reliable servicing for all the sophisticated new equipment, and 3) the need to coordinate with all the company's users.

To meet some of these problems, office equipment buyers say they're taking such tacks as earlier involvement in the procurement process, more multiple sourcing, and more contacts with consultants and other professionals in the field.

Not surprising, this has all tended to put the spotlight squarely on purchasing. As noted above, 33% of queried PMs now say they are the key decision maker when it comes to final purchase. That's more than double the figure noted six months earlier when a similar survey question was posed. **PW**